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Water Resources Data for Nebraska, Water Year 1977

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Jun 78

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Water Resources Data for Nebraska

Water Year 1977

U.S. DEPARTMENT OF THE INTERIOR
MARCH 3, 1849

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NE-77-1

Prepared in cooperation with the Nebraska Department of Water Resources, the Conservation and Survey Division of the University of Nebraska, the Nebraska Natural Resources Commission, and with other State and Federal agencies

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Water resources data for the 1977 water year for Nebraska consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality in wells and springs. This report contains discharge records for 143 gaging stations; stage and contents for 10 lakes and reservoirs; water quality for 37 gaging stations, 19 ungaged stations, 30partial-record flow stations, and 113 wells; and water levels for 68 observation wells. Also included are 115 crest-stage partial-record stations and 10 low-flow partial-record stations. Additional water data were collected at various sites, not part of the systematic data-collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Nebraska.

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CALENDAR FOR WATER YEAR 1977

1976

OCTOBER

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1977

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Water Resources Data
for
Nebraska

Water Year 1977

U.S. DEPARTMENT OF THE INTERIOR
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**Prepared in cooperation with the Nebraska Department
of Water Resources, the Conservation and Survey Division
of the University of Nebraska, the Nebraska Natural Resources
Commission, and with other State and Federal agencies**

1b

UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

H. William Menard, Director

For information on the water program in Nebraska write to:
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U.S. Geological Survey
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100 Centennial Mall - North
Lincoln, Nebraska 68508

1978

PREFACE

This report was prepared by personnel of the Nebraska district of the Water Resources Division of the U.S. Geological Survey under the supervision of K. A. Mac Kichan, District Chief, and Alfred Clebsch, Jr., Regional Hydrologist, Central Region. It was done in cooperation with the State of Nebraska and with other agencies.

This report is one of a series issued by State. General direction for the series is by J. S. Cragwall, Jr., Chief Hydrologist, U. S. Geological Survey, and G. W. Whetstone, Assistant Chief Hydrologist for Scientific Publications and Data Management.

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INTRODUCTION

Water-resources data for the 1977 water year for Nebraska consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 143 gaging stations; stage and contents for 10 lakes and reservoirs; water quality for 37 gaging stations, 19 ungaged stations, 30 partial-record flow or miscellaneous stations, and 113 wells; and water levels for 68 observation wells. Also included are data for 115 crest-stage partial-record stations and 10 low-flow partial-record stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Nebraska.

Records of discharge (or stage) of streams, and contents (or stage) of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through water year 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled, "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.

For water years 1961 through 1974, streamflow data have been released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a State-boundary basis.

These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report NE-77-1." Water-data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22151.

COOPERATION

The U.S. Geological Survey and organizations of the State of Nebraska have had cooperative agreements for the collection of water-resource records since 1930. Organizations that assisted in collecting the data in this report through cooperative agreement with the Survey are:

Nebraska Department of Water Resources, M. E. Ball, Director

Conservation and Survey Division, University of Nebraska-Lincoln, V. H. Dreeszen, Director

Nebraska Natural Resources Commission, Dayle E. Williamson, Executive Secretary

Nebraska Department of Roads, David Coolidge (succeeding T.D. Doyle), Director-State Engineer

Big Blue River Compact Administration

Lower Platte South Natural Resources District, H. L. Schroeder, General Manager

Assistance in the form of funds and services was given by the Corps of Engineers, U.S. Army, in collecting records for 36 gaging stations and by the U.S. Environmental Protection Agency in collecting records for 4 water-quality stations published in this report.

The following organizatons aided in collecting records: Central Nebraska Public Power and Irrigation District, Nebraska Public Power District, and Loup River Public Power District.

ACKNOWLEDGMENT

Nebraska district personnel who contributed significantly to the collection and preparation of the data in this report were: G. G. Jamison, R. A. Engberg, M. J. Ellis, E. K. Steele, Jr., G. B. Engel, C. R. Liggett, and H. D. Stephens.

HYDROLOGIC CONDITIONS

The unseasonably dry weather that was experienced at the end of the 1976 water year continued on into the current year. The drought was reflected by the low streamflow conditions which continued through the month of March. Streamflow was in the deficient range (lower 25 percent of record) for the first 6 months of the water year at the Elkhorn River at Waterloo, in eastern Nebraska, and for 5 of the first 6 months at the Niobrara River above Box Butte Reservoir, in the panhandle. Record-breaking low monthly means were experienced in December at the Box Butte station and in January at the Waterloo station. Streamflow returned to near normal during the last half of the water year over most of the state, except for the Lodgepole Creek basin which continued low during the entire year.

The dissolved-solids concentration for many of the streams in Nebraska were above long-term medians through early spring when the drought in most parts of the state moderated, after which they were generally below long-term medians. The relatively high dissolved-solids concentrations so noticeable in the lower reach of the Platte River during the summer months of 1976 were not detected this summer. In fact, concentrations for the Platte River stations generally were near or below long-term medians.

Ground-water levels rose throughout most of the state during the 1977 water year. Average water levels were higher in the fall of 1977 than in the fall of 1976 in 73 of Nebraska's 93 counties. Most of the counties in which average water-level declines occurred are located in western Nebraska.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Acre-foot(AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warmblooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the weight or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in g/m^3 (grams per cubic meter), and periphyton and benthic organisms in g/m^2 (grams per square meter).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass, and represents the actual weight of the living matter. The organic mass weight is expressed in the same units as for ash and dry mass.

Wet mass is the mass of living matter plus contained water.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,445 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Cubic foot per second (CFS, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to the amount of a substance present in true chemical solution. In practice, however, the term includes all forms of the substance that will pass through a 0.45-micron membrane filter, and thus may include some very small (colloidal) suspended particles. Analyses are performed on filtered samples.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per liter (UG/L, µg/L) is a unit for expressing the concentration of chemical constituents in solution. It represents one one-thousandth of a milligram of constituent in a liter of solution.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology.

The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation
Silt..........	.004 - .062	Sedimentation
Sand..........	.062 - 2.0	Sedimentation or sieve
Gravel........	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PC, pCi) is one trillionth (1 x 10^{12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7 x 10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Polychlorinated biphenyls (PCB's) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that is discharged in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reaction with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating farmland.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimeter at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream or from well to well, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and the volume of water, per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrates simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45-micron membrane filter.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

Kingdom...............	Animal
Phylum................	Arthropoda
Class.................	Insecta
Order.................	Ephemeroptera
Family................	Ephemeridae
Genus.................	Hexagenia
Species...............	Hexagenia limbata

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total (as used in tables of chemical analyses) refers to the amount of a substance that is present both in solution and in suspension. Analyses are performed on representative samples of water-suspended sediment mixtures.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1976, is called the "1976 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual basic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 06796000, which appears just to the left of the station name, includes the 2-digit part number "06" plus the 6-digit downstream-order number "796000."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream-order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 1 below.

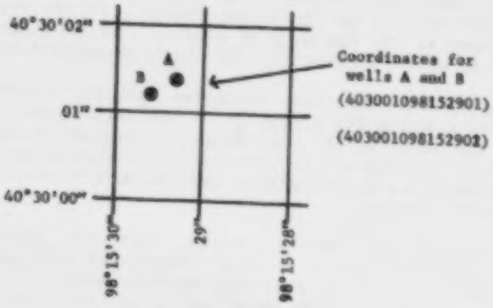

Figure 1. System for numbering wells and miscellaneous sites (latitude and longitude)

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data-collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks, in Water-Supply Paper 888, and in Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For a stream-gaging station rating tables giving the discharge for any stage are prepared from stage-discharge relation curves defined by discharge measurements. If extensions to the rating curves are necessary to define the extremes of discharge, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The application of the daily mean gage heights to the rating table gives the daily mean discharge, from which the monthly and the yearly mean discharges are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. Discharge over spillways is computed from a stage-discharge relation curve defined by discharge measurements. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of basic data. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or contents, and general remarks. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge were revised, that fact is brought out by the notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey, unless otherwise qualified.

Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and to the availability of water quality records, is given under "REMARKS." For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is also given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

Skeleton capacity tables are published for all reservoirs for which records of contents are published on a daily basis.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed (CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs, a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges is within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumptive use, regulation, evaporation, or other factors. For such stations, discharge in cubic feet per second per square mile and runoff in inches are not published unless satisfactory adjustments can be made for such effects. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or unadjusted losses (consumptive use, evaporation, seepage, etc.) are large in comparison with the observed discharge.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of discharge collected by agencies other than the Geological Survey

Records of daily diversions of water from streams by canals are collected by and published in Hydrographic Reports of the Nebraska Department of Water Resources. Also published therein are discharge records for Nebraska streams and storage records for Nebraska reservoirs which are not published in reports of the U.S. Geological Survey. Copies of the Hydrographic Reports may be obtained by addressing the Nebraska Department of Water Resources, Capitol Building, P.O. Box No. 94607, Lincoln, NE 68509.

Records of discharge not published by the Geological Survey were collected in Nebraska at three sites by Corps of Engineers, U.S. Army. The National Water Data Exchange (NAWDEX), Water Resources Division, U.S. Geological Survey, Reston, VA 22092, maintains an index of these sites. Information on records at specific sites can be obtained from that office upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface-water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, water temperature, sediment discharge, etc.); extremes for the period of daily record; extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling and/or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily, maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water temperatures

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for water-discharge stations. Conversions of degrees Celsius to degrees Fahrenheit are shown in table 3. For stations where water temperatures are measured manually once daily, the water temperatures are taken about the same time each day. For stations where thermographs are located, maximum and minimum daily temperatures are published. Large streams have a small diel temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section. When concentrations of suspended sediment are fairly uniform across a stream, observer samples taken at a fixed point are sufficient from which to determine mean concentrations for the cross section.

During periods when water discharge and sediment concentrations may be changing rapidly, samples may be collected more frequently than daily. Published mean daily sediment concentrations for these periods may be computed by the subdivided day method (time-discharge weighted average).

At some stations suspended-sediment samples are collected only periodically. Although data from periodic collections may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

Parameter codes

In most of the column headings of this report the names of the constituents or properties for which data are given are followed by five-digit codes which appear in parentheses. These codes, called parameter codes, are identical to those introduced or approved by the U.S. Environmental Protection Agency and are widely used by federal and state agencies. The codes indicate, to one having a key, more precisely than the verbal column headings can the constituents or properties being reported. Data listed under a given code in this report should be comparable to those listed under the same code by other agencies.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic national network of observation wells are published herein. These water-level measurements are intended to provide a sampling and historical record of water-level changes in the nation's most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on the grid system of latitude and longitude as described under the section entitled "NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES," and (2) a local number that is provided for continuity with older reports and for other use as dictated by local needs.

Measurements are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Water-level measurements in this report are given in feet with reference to either mean sea level (msl) or land-surface datum (lsd). Mean sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

Table 1.--Factors for conversion of chemical constituents in milligrams per liter to milliequivalents per liter

Ion	Factor	Ion	Factor
Aluminum (Al^{+3}).......	0.11119	Iodide (I^{-1})..........	0.00788
Ammonia as NH_4^{+1}	.05544	Iron (Fe^{+3})...........	.05372
Barium (Ba^{+2})..........	.01456	Lead (Pb^{+2})............	.00965
Bicarbonate (HCO_3^{-1})..	.01639	Lithium (Li^{+1})........	.14411
Bromide (Br^{-1}).........	.01251	Magnesium (Mg^{+2})......	.08226
Calcium (Ca^{+2}).........	.04990	Manganese (Mn^{+2})......	.03640
Carbonate (CO_3^{-2}).....	.03333	Nickel (Ni^{+2}).........	.03406
Chloride (Cl^{-1})........	.02821	Nitrate (NO_3^{-1}).......	.01613
Chromium (Cr^{+6})........	.11539	Nitrite (NO_2^{-1}).......	.02174
Cobalt (Co^{+2})..........	.03394	Phosphate (PO_4^{-3}).....	.03159
Copper (Cu^{+2})..........	.03148	Potassium (K^{+1}).......	.02557
Cyanide (CN^{-1}).........	.03844	Sodium (Na^{+1})..........	.04350
Fluoride (F^{-1}).........	.05264	Strontium (Sr^{+2})......	.02283
Hydrogen (H^{+1}).........	.99209	Sulfate (SO_4^{-2}).......	.02082
Hydroxide (OH^{-1})......	.05880	Zinc (Zn^{+2})...........	.03060

NOTE: For constituent reported in micrograms per liter, multiply by the factor and then divide result by 1,000.

Table 2.--Factors for conversion of sediment concentration in milligrams per liter to parts per million*
(All values calculated to three significant figures)

Range of concentration in 1,000 mg/L	Divide by	Range of concentration in 1,000 mg/L	Divide by	Range of concentration in 1,000 mg/L	Divide by	Range of concentration in 1,000 mg/L	Divide by
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05- 24	1.01	218-232	1.14	427-440	1.27	636-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-473	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-506	1.31	700-715	1.44
88.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	331-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-617	1.38		

*Based on water density of 1.00 g/mL and a specific gravity of sediment of 2.65.

Table 3.--Conversions of degrees Celsius (°C) to degrees Fahrenheit (°F).*
(Temperature reported to nearest 0.5°C.)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

*°C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office. Prices are effective January 1978 but are subject to change.

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature-influential factors, field measurement, and data presentation*, by H. H. Stevens Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages. $1.60.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W.Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages. $0.85

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages. $1.90.

2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages. $1.75.

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages. $1.00.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages. $0.35.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages. $0.40.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages. $1.00.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages. $0.35.

3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6, 1968, 13 pages. $1.00.

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages. $1.40.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages. $1.25.

3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages. $1.20.

3-A12. *Fluorometric procedures for dye tracing*, by J. F. Wilson Jr.: USGS--TWRI Book 3, Chapter A12. 1968. 31 pages. $0.35. Not currently available.

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages. $0.70.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2 1976. 172 pages. $2.50.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages. $0.65.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2, 1970. 59 pages. $2.50.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages. $2.10.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4 Chapter A1. 1968. 39 pages. $1.60.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages. $0.35.

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972, 18 pages. $0.65.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages. $0.75.

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4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages. $1.10.

5-A1. *Methods for collection and analysis of water samples for dissolved minerals and gases*, by Eugene Brown, M. W. Skougstad, and M. J. Fishman: USGS--TWRI Book 5, Chapter A1. 1970. 160 pages. $2.40.

5-A2. *Determination of minor elments in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages. $0.80.

5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages. $0.90.

5-A4.* *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P.E. Greeson, T.A. Ehlke, G.A. Irwin, B.W. Lium, and K.V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages. $20.00.

5-A5.* *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages. $16.00.

5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages. $2.10.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages. $2.30.

8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages. $0.70.

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages. $1.10.

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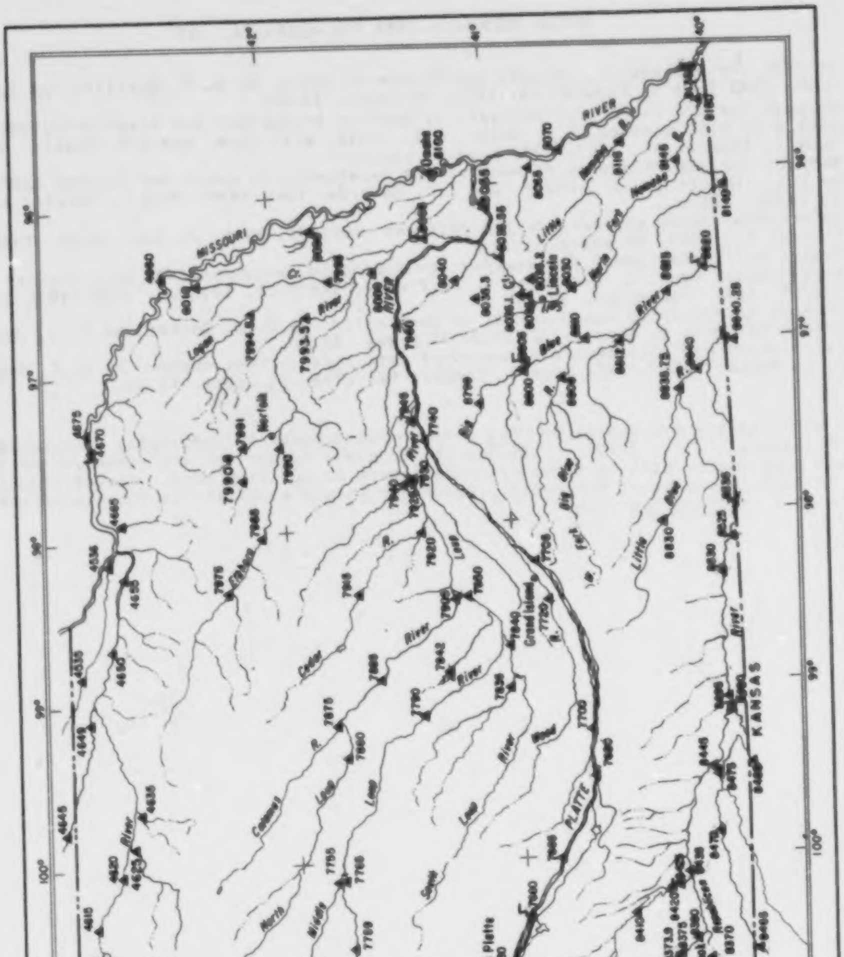

SOUTH DAKOTA
WYOMING
COLORADO
KANSAS
MISSOURI RIVER
PLATTE
North Platte
Grand Island
Lincoln
Omaha
Valentine
Chadron
Scottsbluff
McCook
Niobrara
Snake
White
Elkhorn
Loup
Cedar
Calamus
Dismal
Wood
Republican
Frenchman
Little Blue
Big Blue
Nemaha
EXPLANATION
Active surface water station
Active stage only station
Gaging station equipped with telephone
0 10 20 30 40 Miles
43°
42°
41°
40°
104°
103°
102°
101°
100°
99°
98°
97°
96°

Figure 2.--Map of Nebraska showing location of complete-record stations.

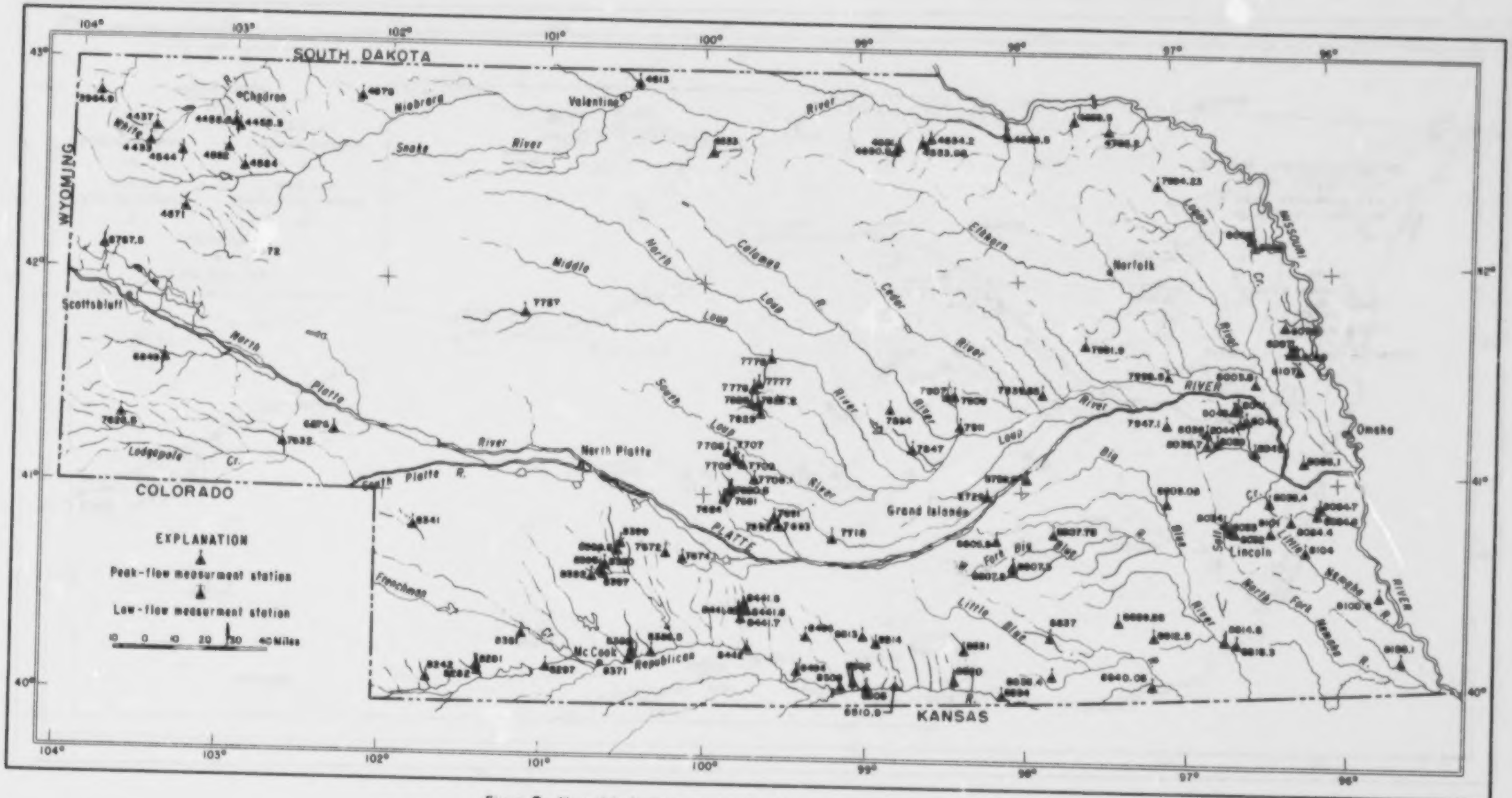
SOUTH DAKOTA
WYOMING
COLORADO
KANSAS
Chadron
Valentine
Scottsbluff
North Platte
Grand Island
Norfolk
Lincoln
Omaha
McCook
White R.
Niobrara
Snake River
River
Elkhorn
Cedar River
Calamus R.
North Loup River
Middle Loup River
South Loup River
Loup River
Logan Cr.
MISSOURI RIVER
North Platte River
South Platte R.
PLATTE RIVER
Lodgepole Cr.
Frenchman Cr.
Republican
Big Blue River
W. Fork Big Blue
Little Blue R.
Salt Cr.
Little Nemaha R.
North Fork Nemaha R.
104°
103°
102°
101°
100°
99°
98°
97°
96°
43°
42°
41°
40°
EXPLANATION
Peak-flow measurment station
Low-flow measurment station
10 0 10 20 30 40 Miles

Figure 3.--Map of Nebraska showing location of partial-record stations.

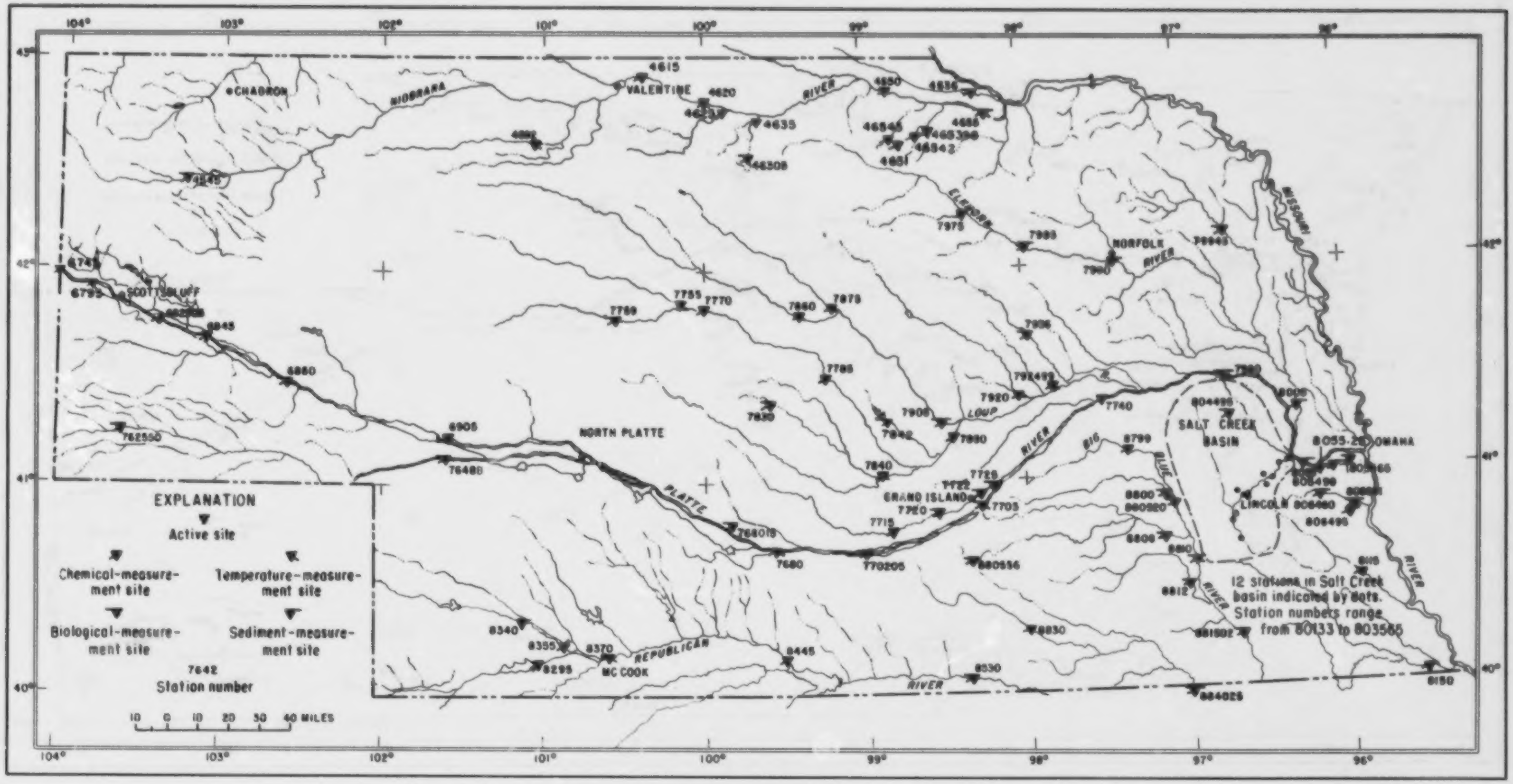
EXPLANATION
Active site
Chemical-measurement site
Temperature-measurement site
Biological-measurement site
Sediment-measurement site
7642
Station number
10 0 10 20 30 40 MILES
104°
103°
102°
101°
100°
99°
98°
97°
96°
43°
42°
41°
40°
CHADRON
NIOBRARA
VALENTINE
RIVER
4615
4620
4635
46308
4650
4636
46545
465396
46542
4651
ELKHORN
7975
7985
NORFOLK
RIVER
7960
79943
MISSOURI
SCOTTSBLUFF
6745
6795
6845
6880
6905
762550
76480
NORTH PLATTE
PLATTE
768018
7680
770205
7715
7720
GRAND ISLAND
7722
7725
7705
7755
7770
7769
7860
7875
7785
7830
7842
7906
7880
7840
7920
792493
7906
LOUP
RIVER
7740
7780
8005
804495
SALT CREEK
BASIN
8055.28
OMAHA
805490
805460
LINCOLN
806495
BIG
BLUE
RIVER
8799
8800
880920
8806
8810
8812
8815
881502
880556
8830
884025
8150
12 stations in Salt Creek basin indicated by dots. Station numbers range from 80133 to 803565
8340
8355
8370
8295
MC COOK
REPUBLICAN
8445
8530
RIVER

Figure 4.--Map showing locations of surface water-quality stations in Nebraska, 1976 water year.

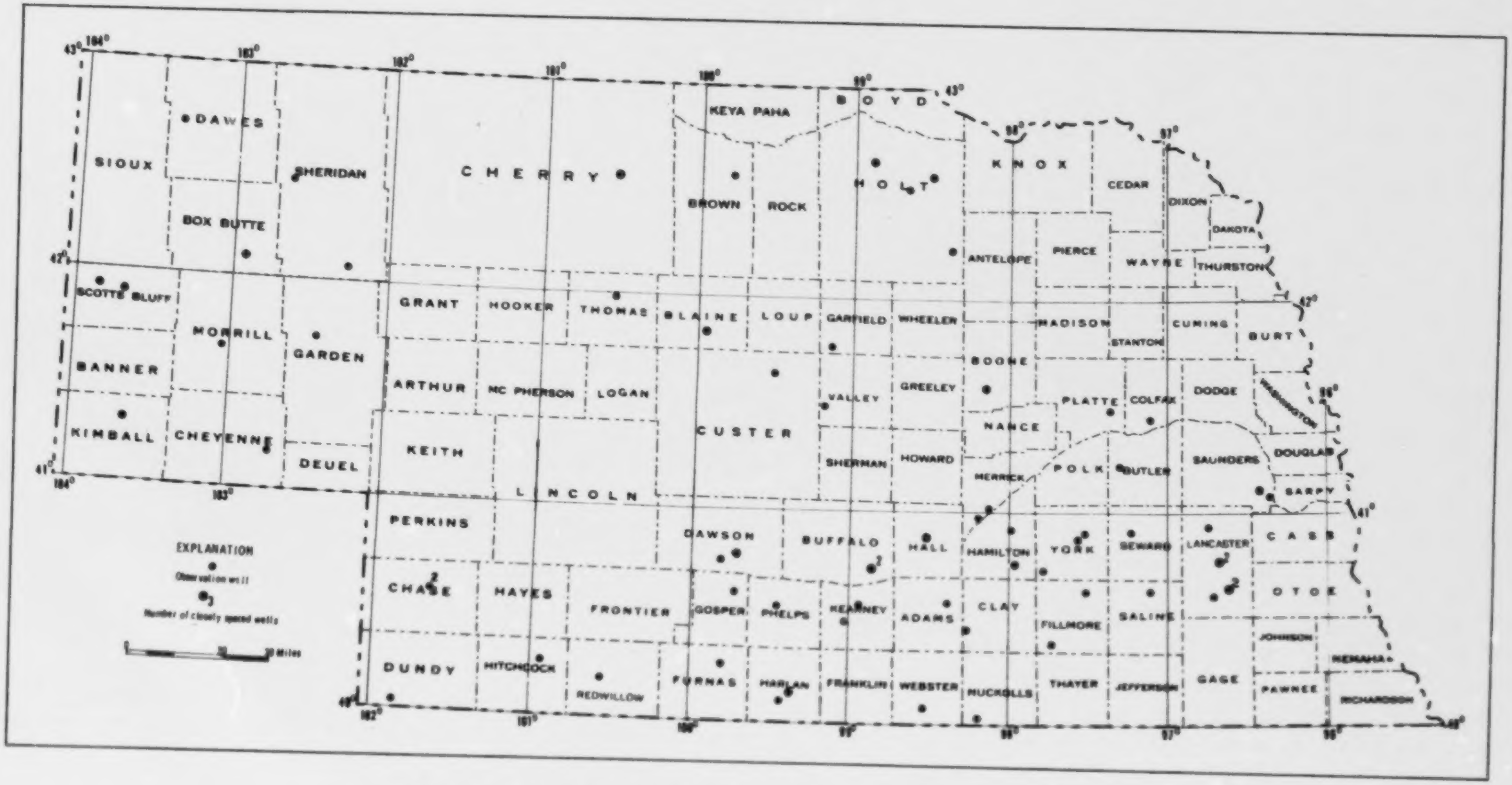
104°
103°
102°
101°
100°
99°
98°
97°
96°
43°
42°
41°
40°
SIOUX
DAWES
SHERIDAN
BOX BUTTE
CHERRY
KEYA PAHA
BROWN
ROCK
BOYD
HOLT
KNOX
CEDAR
DIXON
DAKOTA
ANTELOPE
PIERCE
WAYNE
THURSTON
SCOTTS BLUFF
MORRILL
GARDEN
GRANT
HOOKER
THOMAS
BLAINE
LOUP
GARFIELD
WHEELER
MADISON
STANTON
CUMING
BURT
BANNER
ARTHUR
MC PHERSON
LOGAN
CUSTER
VALLEY
GREELEY
BOONE
PLATTE
COLFAX
DODGE
WASHINGTON
KIMBALL
CHEYENNE
DEUEL
KEITH
NANCE
SHERMAN
HOWARD
MERRICK
POLK
BUTLER
SAUNDERS
DOUGLAS
SARPY
LINCOLN
PERKINS
DAWSON
BUFFALO
HALL
HAMILTON
YORK
SEWARD
LANCASTER
CASS
CHASE
HAYES
FRONTIER
GOSPER
PHELPS
KEARNEY
ADAMS
CLAY
FILLMORE
SALINE
OTOE
JOHNSON
NEMAHA
DUNDY
HITCHCOCK
REDWILLOW
FURNAS
HARLAN
FRANKLIN
WEBSTER
NUCKOLLS
THAYER
JEFFERSON
GAGE
PAWNEE
RICHARDSON
2
2
2
2
EXPLANATION
● Observation well
●3 Number of closely spaced wells
0
20
30 Miles

Figure 5.-- Map showing locations of selected observation wells.

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WHITE RIVER BASIN

06444000 WHITE RIVER AT CRAWFORD, NE

LOCATION.--Lat 42°41'33", long 103°25'03", in W1/2 sec.3, T.31 N., R.52 W., Dawes County, Hydrologic Unit 10140201, on right bank 15 ft (5 m) downstream from bridge in city park at Crawford.

DRAINAGE AREA.--313 mi^2 (811 km^2).

PERIOD OF RECORD.--February 1931 to September 1943, October 1947 to current year.

REVISED RECORDS.--WSP 1309: 1931(M), 1942(M). WSP 1729: 1958-59(M). WSP 1917: 1958-59.

GAGE.--Water-stage recorder. Datum of gage is 3,659.85 ft (1,115.522 m) above mean sea level. Feb. 25, 1931, to Oct. 2, 1933, nonrecording gage at old highway bridge 0.5 mi (0.8 km) upstream at different datum and Oct. 3, 1933, to Sept. 30, 1943, 1 mi (2 km) upstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Some regulation at low flows by pumps for irrigation and diversion for water supply for town of Crawford.

AVERAGE DISCHARGE.--42 years, 20.2 ft^3/s (0.572 m^3/s), 14,630 acre-ft/yr (18.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,580 ft^3/s (44.7 m^3/s) Mar. 15, 1948, gage height, 6.88 ft (2.097 m); maximum gage height, 7.7 ft (2.35 m) July 10, 1958, from floodmarks; minimum daily discharge, 2.7 ft^3/s (0.076 m^3/s) Aug. 13, 31, Sept. 1, 1960.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s (2.83 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 16	1100			a3.33	1.015	Aug. 17	1200	*189	5.4	3.21	0.978
June 13	0600	139	3.9	2.62	0.799						

a Backwater from ice

Minimum daily, 8.7 ft^3/s (0.25 m^3/s) July 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	19	20	20	22	23	28	25	19	12	10	14
2	15	19	19	19	23	23	27	23	20	12	10	14
3	15	20	19	19	22	21	26	25	19	11	11	14
4	16	19	18	18	23	21	27	25	19	11	12	14
5	17	20	19	16	23	21	26	24	19	11	15	13
6	18	20	18	15	23	22	26	24	22	12	16	13
7	18	20	20	16	22	25	26	26	21	11	14	13
8	18	21	19	17	22	25	25	26	19	11	28	12
9	17	21	20	15	23	25	26	26	18	12	16	12
10	17	21	20	15	23	25	25	25	17	12	11	13
11	17	21	22	15	24	24	29	26	17	11	13	13
12	17	18	22	16	23	23	37	25	32	11	12	15
13	17	18	22	18	23	26	30	25	54	10	11	17
14	17	20	21	22	23	30	26	25	27	10	12	15
15	17	20	21	23	22	27	27	25	18	10	11	14
16	17	20	21	20	23	26	30	25	17	9.6	13	14
17	17	19	22	19	23	27	26	25	18	9.1	59	14
18	17	19	22	18	23	27	25	25	17	8.7	26	13
19	18	19	21	20	22	26	26	29	18	8.7	17	13
20	18	18	18	21	22	25	26	27	19	10	17	13
21	18	18	18	22	23	24	25	28	19	14	16	13
22	18	18	20	22	24	24	25	33	18	13	15	13
23	19	18	20	23	26	25	24	29	17	12	16	15
24	19	20	20	23	24	25	24	27	16	12	16	16
25	19	20	20	22	23	24	23	24	15	14	21	15
26	19	20	21	21	22	23	23	24	14	15	20	15
27	19	20	24	22	23	25	23	26	14	13	18	16
28	19	20	23	20	23	30	23	25	13	13	17	16
29	21	20	22	19	---	29	24	24	13	12	16	15
30	18	20	20	18	---	27	25	23	13	11	15	24
31	19	---	18	20	---	27	---	22	---	10	14	---
TOTAL	547	586	630	594	642	775	783	791	582	352.1	518	431
MEAN	17.6	19.5	20.3	19.2	22.9	25.0	26.1	25.5	19.4	11.4	16.7	14.4
MAX	21	21	24	23	26	30	37	33	54	15	59	24
MIN	15	18	18	15	22	21	23	22	13	8.7	10	12
AC-FT	1080	1160	1250	1180	1270	1540	1550	1570	1150	698	1030	855

CAL YR 1976 TOTAL 7102.4 MEAN 19.4 MAX 51 MIN 9.4 AC-FT 14090
WTR YR 1977 TOTAL 7231.1 MEAN 19.8 MAX 59 MIN 8.7 AC-FT 14340

06445590 BIG BORDEAUX CREEK NEAR CHADRON, NE

LOCATION.--Lat 42°43'30", long 102°55'44", in NW1/4NW1/4 sec.26, T.32 N., R.48 W., Dawes County, Hydrologic Unit 10140201, Nebraska National Forest-Pine Ridge Division, on right bank 4.2 mi (6.8 km) northeast of Chadron State Park headquarters and 8 mi (13 km) southeast of Chadron.

DRAINAGE AREA.--9.42 mi² (24.40 km²).

PERIOD OF RECORD.--June 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,800 ft (1,160 m), from topographic map.

REMARKS.--Records good, except those for winter period, which are poor.

AVERAGE DISCHARGE.--9 years, 0.60 ft³/s (0.0169 m³/s), 435 acre-ft/yr (0.536 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,670 ft³/s (161 m³/s) May 6, 1977, gage height, 12.0 ft (3.66 m), from rating curve extended above 43 ft³/s (1.22 m³/s) on basis of slope-area measurement of peak flow; no flow Dec. 10-16, 1972, Jan. 6-12, 1973, Mar. 28, 1975, Jan. 12-22, Jan. 29 to Feb. 10, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2.0 ft³/s (0.057 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 6	unknown	*5670	161	12.0	3.658	May 26	unknown	184	5.2	3.92	1.195
May 21	unknown	a2.0	0.1	unknown							

a about

No flow Jan. 12-22, Jan. 29 to Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.15	.08	.30	.00	.30	.74	.58	.96	.30	.15	.15
2	.13	.15	.04	.32	.00	.25	.74	.56	.78	.27	.15	.15
3	.13	.15	.02	.32	.00	.20	.78	.55	.78	.27	.18	.15
4	.13	.16	.02	.20	.00	.25	.82	.55	.69	.24	.18	.15
5	.15	.16	.01	.18	.00	.30	.82	.55	.64	.27	.24	.16
6	.15	.16	.01	.15	.00	.35	.87	500	.52	.30	.20	.16
7	.15	.16	.03	.12	.00	.40	.92	10	.52	.27	.20	.16
8	.15	.16	.05	.10	.00	.45	.92	1.5	.48	.32	.27	.16
9	.15	.16	.15	.05	.00	.54	.87	1.0	.44	.33	.22	.15
10	.15	.16	.15	.02	.00	.54	.87	.98	.44	.20	.27	.15
11	.15	.16	.20	.01	.04	.55	.96	.96	.44	.18	.24	.15
12	.15	.18	.25	.00	.10	.56	1.1	.94	.52	.18	.22	.15
13	.15	.19	.27	.00	.30	.57	1.0	.92	.48	.18	.22	.15
14	.15	.20	.24	.00	.35	.58	.92	.88	.48	.18	.24	.15
15	.15	.22	.27	.00	.40	.59	.92	.84	.44	.16	.18	.15
16	.15	.22	.30	.00	.40	.60	.92	.79	.44	.16	.18	.15
17	.15	.22	.27	.00	.50	.61	.87	.74	.48	.16	.18	.16
18	.16	.16	.27	.00	.55	.62	.82	.80	.48	.15	.18	.16
19	.16	.16	.25	.00	.60	.63	.82	.76	.48	.15	.16	.18
20	.16	.16	.10	.00	.65	.64	.82	.76	.44	.39	.16	.18
21	.16	.16	.08	.00	.65	.64	.78	2.0	.44	.27	.16	.16
22	.16	.16	.15	.00	.60	.64	.76	1.0	.40	.27	.16	.16
23	.16	.16	.18	.10	.55	.69	.74	.90	.37	.24	.16	.22
24	.16	.18	.20	.15	.50	.74	.72	.80	.40	.22	.18	.20
25	.16	.16	.25	.20	.45	.69	.70	1.0	.33	.22	.19	.20
26	.16	.16	.33	.20	.40	.69	.68	15	.33	.20	.15	.20
27	.16	.14	.33	.25	.35	.69	.66	2.0	.30	.16	.15	.20
28	.16	.12	.33	.10	.36	.60	.64	1.0	.30	.16	.15	.20
29	.16	.12	.33	.00	---	.55	.62	1.0	.27	.13	.15	.22
30	.15	.10	.25	.00	---	.55	.60	.98	.30	.15	.15	.27
31	.15	---	.25	.00	---	.60	---	.96	---	.15	.15	---
TOTAL	4.69	4.90	5.66	2.77	7.75	16.61	24.40	551.30	14.37	6.83	5.77	5.15
MEAN	.15	.16	.18	.089	.28	.54	.81	17.8	.48	.22	.19	.17
MAX	.16	.22	.33	.32	.65	.74	1.1	500	.96	.39	.27	.27
MIN	.13	.10	.01	.00	.00	.20	.60	.55	.27	.13	.15	.15
AC-FT	9.3	9.7	11	5.5	15	33	48	1090	29	14	11	10

CAL YR 1976 TOTAL 129.25 MEAN .35 MAX 1.2 MIN .01 AC-FT 256
WTR YR 1977 TOTAL 650.20 MEAN 1.78 MAX 500 MIN .00 AC-FT 1290

06453500 PONCA CREEK AT ANOKA, NE

LOCATION.--Lat 42°56'25", long 98°50'30", in NE1/4 sec.9, T.34 N., R.13 W., Boyd County, Hydrologic Unit 10150001, on downstream side of left pier of bridge on State Highway 11, 0.5 mi (0.8 km) southwest of Anoka and 0.5 mi (0.8 km) upstream from Dry Creek.

DRAINAGE AREA.--505 mi² (1,308 km²).

PERIOD OF RECORD.--March 1949 to current year.

REVISED RECORDS.--WSP 2117: Drainage area.

GAGE.--Water-stage recorder for stages above 0.4 ft (0.12 m) and nonrecording gage read twice daily. Altitude of gage is 1,630 ft (497 m), from topographic map. Prior to Sept. 13, 1950, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--28 years, 46.5 ft³/s (1.317 m³/s), 33,690 acre-ft/yr (41.5 hm³/yr); median of yearly mean discharges, 31 ft³/s (0.878 m³/s), 22,500 acre-ft/yr (27.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,810 ft³/s (278 m³/s) Mar. 27, 1960, gage height, 16.86 ft (5.139 m); no flow at times in 1949-50, 1955-62, 1965-71, 1974-76.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 12	0730	1000	28.3	5.86	1.786
Aug. 9	0630	*1240	35.1	6.39	1.948

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.80	85	20	16	8.7	.27	2.2
2	.00	.00	.00	.00	.00	.60	61	17	16	8.2	.20	2.2
3	.00	.00	.00	.00	.00	.40	52	15	14	7.4	.27	2.0
4	.00	.00	.00	.00	.00	.60	47	14	13	6.5	.13	2.0
5	.00	.00	.00	.00	.00	.80	43	13	12	5.4	.06	1.6
6	.00	.00	.00	.00	.00	1.0	36	12	10	5.2	.13	1.5
7	.00	.00	.00	.00	.00	2.0	30	12	10	4.9	.13	1.4
8	.00	.00	.00	.00	.00	4.0	23	13	8.9	4.3	.90	1.2
9	.00	.00	.00	.00	.00	6.0	20	12	8.5	4.7	549	.99
10	.00	.00	.00	.00	.00	10	17	13	7.8	9.3	172	.76
11	.00	.00	.00	.00	.00	214	15	11	8.2	5.5	66	.76
12	.00	.00	.00	.00	.00	607	14	10	12	4.4	24	1.4
13	.00	.00	.00	.00	.00	150	13	9.3	13	3.6	14	1.1
14	.00	.00	.00	.00	.00	95	15	9.6	12	3.0	10	.83
15	.00	.00	.00	.00	.00	102	14	11	12	2.6	8.2	.76
16	.00	.00	.00	.00	.00	91	16	9.3	10	2.5	6.9	1.3
17	.00	.00	.00	.00	.00	74	18	9.8	65	2.9	6.2	4.3
18	.00	.00	.00	.00	.00	88	20	8.9	165	2.9	5.7	2.9
19	.00	.00	.00	.00	.00	81	32	10	210	2.6	5.2	1.4
20	.00	.00	.00	.00	.00	59	42	9.8	159	1.8	5.0	1.1
21	.00	.00	.00	.00	.00	40	166	20	93	1.7	4.4	9.5
22	.00	.00	.00	.00	.00	31	136	175	68	1.6	4.7	48
23	.00	.00	.00	.00	.10	26	157	162	55	1.4	5.2	12
24	.00	.00	.00	.00	.30	23	128	98	38	1.2	5.0	4.4
25	.00	.00	.00	.00	.20	22	78	63	27	1.1	5.2	2.4
26	.00	.00	.00	.00	.20	25	55	51	20	.90	5.5	1.9
27	.00	.00	.00	.00	.40	31	43	51	16	.90	11	2.4
28	.00	.00	.00	.00	.70	28	33	41	13	.69	15	6.9
29	.00	.00	.00	.00	---	62	26	31	11	.55	6.7	5.5
30	.00	.00	.00	.00	---	95	24	25	10	.34	3.6	50
31	.00	---	.00	.00	---	88	---	20	---	.20	2.6	---
TOTAL	.00	.00	.00	.00	1.90	2058.20	1459	976.7	1133.4	106.98	943.19	174.70
MEAN	.000	.000	.000	.000	.068	66.4	48.6	31.5	37.8	3.45	30.4	5.82
MAX	.00	.00	.00	.00	.70	607	166	175	210	9.3	549	50
MIN	.00	.00	.00	.00	.00	.40	13	8.9	7.8	.20	.06	.76
AC-FT	.00	.00	.00	.00	3.8	4080	2890	1940	2250	212	1870	347

CAL YR 1976 TOTAL 925.48 MEAN 2.53 MAX 42 MIN .00 AC-FT 1840
WTR YR 1977 TOTAL 6854.07 MEAN 18.8 MAX 607 MIN .00 AC-FT 13600

06453600 PONCA CREEK AT VERDEL, NE

LOCATION.--Lat 42°48'40", long 98°10'35", in SE1/4NE1/4 sec.30, T.33 N., R.7 W., Knox County, Hydrologic Unit 10150001, near left bank at left downstream end of bridge on State Highway 12, 0.6 mi (1.0 km) east of Verdel and 3.1 mi (5.0 km) upstream from mouth.

DRAINAGE AREA.--812 mi² (2,103 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WSP 2117: Drainage area.

GAGE.--Water-stage recorder and nonrecording gage read once daily. Datum of gage is 1,232.9 ft (375.79 m) above mean sea level (Nebraska Department of Highways reference marks). See WSP 1917 for history of changes prior to Nov. 15, 1962.

REMARKS.--Records poor prior to April and good thereafter.

AVERAGE DISCHARGE.--20 years, 71.8 ft³/s (2.033 m³/s), 52,020 acre-ft/yr (64.1 hm³/yr); median of yearly mean discharges, 54 ft³/s (1.529 m³/s), 39,100 acre-ft/yr (48.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft³/s (445 m³/s) Mar. 27, 1960, gage height, 15.10 ft (4.602 m), site and datum then in use; no flow for many days in 1957-60, 1965-72, 1974-77.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s (22.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 12	2130	1710	48.4	5.49	1.673
Aug. 9	2000	*1730	49.0	7.29	2.222

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	3.1	112	29	87	15	.00	12
2	.00	.00	.00	.00	.00	2.8	138	27	38	18	.02	10
3	.00	.00	.00	.00	.00	1.2	85	25	31	15	.09	8.2
4	.00	.00	.00	.00	.00	.30	62	23	27	13	7.8	33
5	.00	.00	.00	.00	.00	.10	56	21	24	8.8	1.7	28
6	.00	.00	.00	.00	.00	.70	53	19	20	7.9	.02	9.8
7	.00	.00	.00	.00	.00	7.0	44	18	18	8.8	.06	6.8
8	.00	.00	.00	.00	.00	10	35	18	16	6.6	1.8	4.9
9	.00	.00	.00	.00	.00	8.0	29	17	13	6.3	530	4.0
10	.00	.00	.00	.00	.00	10	24	16	12	15	648	3.1
11	.00	.00	.00	.00	.00	32	21	15	12	18	217	2.8
12	.00	.00	.00	.00	.00	456	19	15	15	10	102	87
13	.00	.00	.00	.00	.00	860	17	14	24	7.0	52	13
14	.00	.00	.00	.00	.00	268	22	13	32	5.9	33	7.4
15	.00	.00	.00	.00	.00	150	21	13	20	5.6	26	5.3
16	.00	.00	.00	.00	.00	133	19	12	16	5.0	22	4.3
17	.00	.00	.00	.00	.00	112	18	11	72	5.0	19	6.2
18	.00	.00	.00	.00	.00	79	16	11	167	4.6	16	4.3
19	.00	.00	.00	.00	.00	98	17	15	158	2.5	15	4.0
20	.00	.00	.00	.00	.00	81	34	15	292	2.1	14	6.9
21	.00	.00	.00	.00	.00	51	61	80	208	2.3	12	5.8
22	.00	.00	.00	.00	.02	36	209	85	192	2.3	11	6.6
23	.00	.00	.00	.00	.06	27	150	531	120	1.5	10	16
24	.00	.00	.00	.00	.00	25	158	402	85	3.3	8.9	38
25	.00	.00	.00	.00	.00	21	147	285	62	53	9.3	17
26	.00	.00	.00	.00	.00	21	87	155	87	8.8	8.6	11
27	.00	.00	.00	.00	.00	20	59	112	34	3.3	7.7	7.0
28	.00	.00	.00	.00	.58	25	44	106	24	1.9	7.3	6.4
29	.00	.00	.00	.00	---	66	39	161	20	.86	8.2	9.7
30	.00	.00	.00	.00	---	96	34	81	20	.16	16	36
31	.00	---	.00	.00	---	187	---	59	---	.00	18	---
TOTAL	.00	.00	.00	.00	.66	2852.00	1828	2404	1982	249.52	1822.49	409.7
MEAN	.000	.000	.000	.000	.024	92.0	60.9	77.5	66.1	8.05	58.8	13.7
MAX	.00	.00	.00	.00	.58	860	209	531	292	53	648	87
MIN	.00	.00	.00	.00	.00	.10	16	11	12	.00	.00	2.8
AC-FT	.00	.00	.00	.00	1.3	5660	3630	4770	3930	495	3610	813

CAL YR 1976 TOTAL 4108.24 MEAN 11.2 MAX 197 MIN .00 AC-FT 8150
WTR YR 1977 TOTAL 11508.37 MEAN 31.5 MAX 860 MIN .00 AC-FT 22830

PONCA CREEK BASIN

06453600 PONCA CREEK AT VERDEL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--July 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM, .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)
FEB										
23...	1055	.08	702	7.9	.5	9	11.4	5.9	400	2000
MAR										
17...	1030	109	540	8.2	4.0	140	12.5	7.6	340	1500
APR										
05...	0950	54	702	8.4	1.5	65	11.2	3.4	28	48
MAY										
17...	1520	12	1030	8.2	31.5	7	6.7	2.6	200	180
JUN										
07...	1530	17	920	8.2	30.0	40	7.7	2.3	490	310
JUL										
26...	1630	7.0	1040	7.6	27.5	15	8.2	3.4	2900	--
AUG										
30...	1420	17	780	8.2	26.0	40	8.3	2.2	1000	--
SEP										
21...	1235	5.0	1110	7.9	16.0	5	9.6	1.8	320	--

DATE	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)
FEB										
23...	--	5.6	--	.76	.10	.72	.82	1.1	.19	.11
MAR										
17...	--	7.6	391	.53	.41	1.6	2.0	3.0	.52	--
APR										
05...	--	13	508	.69	.07	.57	.64	1.1	.26	--
MAY										
17...	--	15	--	.98	.00	.41	.41	.43	.08	.01
JUN										
07...	--	12	646	.88	.03	.62	.65	.68	.15	--
JUL										
26...	4700	16	695	.95	.00	.55	.55	.60	.02	--
AUG										
30...	2200	14	--	.79	.00	.42	.42	.43	.14	.02
SEP										
21...	3700	15	829	1.13	.06	.15	.21	.30	.03	--

06453600 PONCA CREEK AT VERDEL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)
FEB 23...	1055	35	390	210	120	21	28	.6	12	216
MAY 17...	1520	6	470	310	130	35	39	.8	14	190
AUG 30...	1420	22	380	220	110	26	26	.6	14	200

DATE	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)
FEB 23...	0	177	250	.3	17	561	1	130	1	0
MAY 17...	0	160	380	.4	16	723	--	160	--	--
AUG 30...	0	160	280	.4	15	584	0	170	2	0

DATE	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUS-PENDED MERCURY (HG) (UG/L) (71895)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)
FEB 23...	4	60	3	350	.1	.1	.0	3	0	0
MAY 17...	--	10	--	20	--	--	--	--	--	--
AUG 30...	3	10	21	0	.0	.0	.0	5	0	10

06454000 NIOBRARA RIVER AT WYOMING-NEBRASKA STATE LINE

LOCATION.--Lat 42°39'33", long 104°03'54", in SE1/4SW1/4 sec.15, T.31 N., R.60 W., Niobrara County, Wy., Hydrologic Unit 10150002, on left bank 0.2 mi (0.3 km) downstream from Van Tassel Creek, 0.3 mi (0.5 km) upstream from Wyoming-Nebraska State line, and 3 mi (5 km) east of Van Tassel, Wy.

DRAINAGE AREA.--450 mi² (1,170 km²), approximately.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,687.70 ft (1,428.811 m) above mean sea level, datum of 1956.

REMARKS.--Records good. Diversions for irrigation of about 4,700 acres (19.0 km²) above station.

AVERAGE DISCHARGE.--22 years, 3.60 ft³/s (0.102 m³/s), 3,060 acre-ft/yr (3.77 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,120 ft³/s (60.0 m³/s) Aug. 16, 1977, gage height, 8.28 ft (2.524 m) in gage well, from rating curve extended above 800 ft³/s (22.7 m³/s) on basis of computation of peak flow from slope-area measurement; minimum daily, 0.54 ft³/s (0.015 m³/s) Aug. 9,10,12, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,120 ft³/s (60.0 m³/s) Aug. 16 at 2100, gage height, 8.28 ft (2.524 m) in gage well, from rating curve extended above 800 ft³/s (22.7 m³/s) on basis of computation of peak flow from slope-area measurement, no other peak above base of 20 ft³/s (0.57 m³/s); minimum daily, 0.85 ft³/s (0.024 m³/s) July 18,19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	2.2	2.5	2.4	2.2	2.2	4.1	3.5	2.2	1.2	1.2	2.0
2	1.6	2.4	2.7	2.7	2.1	2.2	3.5	3.5	2.1	1.2	1.2	2.0
3	1.7	2.4	2.7	2.5	2.1	2.5	3.4	3.5	2.0	1.2	1.2	2.0
4	1.7	2.4	2.5	2.5	2.1	2.5	3.5	3.4	1.8	1.3	1.5	1.9
5	1.8	2.2	2.8	2.2	2.2	2.8	4.9	3.1	1.6	1.5	1.6	1.8
6	1.9	2.4	2.7	2.2	2.1	2.5	4.9	2.9	1.5	1.4	1.6	1.7
7	1.8	2.2	2.7	2.2	2.1	3.0	4.7	2.9	1.5	1.4	1.3	1.7
8	1.7	2.4	2.8	2.2	2.2	3.4	4.3	2.9	1.7	1.6	1.4	1.7
9	1.7	2.2	2.8	2.2	2.1	3.7	4.1	2.8	1.6	1.6	1.5	1.7
10	1.7	2.1	2.5	2.1	2.1	3.6	4.1	2.8	1.6	1.4	1.5	1.8
11	1.6	2.1	2.5	2.0	2.1	3.0	5.3	3.2	1.7	1.2	1.6	1.9
12	1.6	2.0	2.5	2.0	2.1	2.8	6.7	2.9	2.0	1.2	1.6	1.8
13	1.6	2.0	2.2	2.0	2.2	2.6	5.8	2.8	1.9	1.2	1.5	1.9
14	1.6	2.0	2.4	2.0	2.2	2.8	8.2	2.8	1.7	1.2	1.5	1.9
15	1.6	1.9	2.4	2.0	2.1	3.0	9.3	2.9	1.6	1.1	1.5	1.9
16	1.6	1.9	2.2	2.0	2.2	2.9	8.9	2.9	1.6	1.0	233	1.9
17	1.7	2.0	2.4	2.0	2.2	2.9	7.6	2.9	1.5	.97	180	1.9
18	1.8	2.0	2.4	1.9	2.5	3.5	7.0	3.2	1.5	.85	2.9	2.0
19	1.8	2.0	2.4	1.9	2.5	3.4	6.7	3.1	1.5	.85	5.1	2.0
20	1.9	2.1	2.2	2.0	2.4	3.7	6.4	2.9	1.5	1.2	5.8	2.1
21	1.8	2.0	2.2	2.2	2.5	3.7	5.8	2.9	1.4	1.2	5.3	2.1
22	1.9	1.9	2.2	2.3	2.8	4.1	5.1	2.9	1.4	1.1	4.5	2.1
23	1.9	2.0	2.2	2.4	2.7	4.5	4.9	2.8	1.2	1.1	3.9	2.2
24	2.0	2.2	2.2	2.5	2.4	4.5	4.7	2.7	1.3	1.2	3.2	2.2
25	2.1	2.4	2.2	2.5	2.5	4.5	4.7	2.5	1.2	1.3	3.2	2.4
26	1.9	2.4	2.4	2.4	2.5	4.5	4.7	2.5	1.2	1.2	3.1	2.4
27	2.1	2.2	2.0	2.4	2.7	4.3	4.5	2.7	1.2	1.2	2.9	2.4
28	2.0	2.2	1.9	2.2	2.8	4.9	4.3	2.5	1.2	1.3	2.7	2.2
29	2.1	2.2	2.2	2.2	---	4.5	4.5	2.5	1.2	1.2	2.4	2.4
30	2.1	2.5	2.1	2.2	---	4.0	4.1	2.4	1.2	1.1	2.1	2.4
31	2.2	---	2.1	2.2	---	4.0	---	2.4	---	1.2	2.1	---
TOTAL	56.1	64.9	74.0	68.5	64.3	106.5	160.7	89.7	46.6	37.67	483.9	60.4
MEAN	1.81	2.16	2.39	2.21	2.30	3.44	5.36	2.89	1.55	1.22	15.6	2.01
MAX	2.2	2.5	2.8	2.7	2.8	4.9	9.3	3.5	2.2	1.6	233	2.4
MIN	1.6	1.9	1.9	1.9	2.1	2.2	3.4	2.4	1.2	.85	1.2	1.7
AC-FT	111	129	147	136	128	211	319	178	92	75	960	120

CAL YR 1976 TOTAL 927.70 MEAN 2.53 MAX 13 MIN 1.1 AC-FT 1840
WTR YR 1977 TOTAL 1313.27 MEAN 3.60 MAX 233 MIN .85 AC-FT 2600

06454100 NIOBRARA RIVER AT AGATE, NE

LOCATION.--Lat 42°25'22", long 103°47'20", in SW1/4 sec.4, T.28 N., R.55 W., Sioux County, Hydrologic Unit 10150002, on right bank 10 ft (3 m) upstream from timber farm-vehicle bridge, 300 ft (91 m) upstream from bridge on State Highway 29, 0.2 mi (0.3 km) northwest of Agate, and 14.5 mi (23.3 km) upstream from Whistle Creek.

DRAINAGE AREA.--840 mi² (2,180 km²), approximately.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,440 ft (1,353 m), from topographic map. Prior to Nov. 3, 1960, nonrecording gage at present site and datum.

REMARKS.--Records good. Diversions for irrigation of about 6,700 acres (27.1 km²) above station.

AVERAGE DISCHARGE.--20 years, 14.3 ft³/s (0.405 m³/s), 10,360 acre-ft/yr (12.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 181 ft³/s (5.13 m³/s) June 23, 1959, gage height, 5.00 ft (1.524 m), from floodmark; minimum daily, 1.0 ft³/s (0.028 m³/s) Mar. 29, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 42 ft³/s (1.19 m³/s) Mar. 24 at 1115, gage height, 3.47 ft (1.058 m), no other peak above base of 35 ft³/s (0.99 m³/s); minimum daily, 1.2 ft³/s (0.034 m³/s) Mar. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	12	12	12	14	18	20	14	6.9	3.9	4.4	10
2	9.2	12	11	13	14	17	23	14	6.5	3.8	4.2	10
3	9.1	12	14	14	14	10	22	13	6.2	3.6	4.1	10
4	8.9	12	14	14	14	12	22	13	6.0	3.8	4.2	10
5	9.3	12	13	13	14	15	26	11	6.5	4.0	4.6	10
6	9.6	12	13	12	14	15	25	11	8.2	3.9	5.0	10
7	9.6	12	13	13	14	20	25	11	6.9	3.8	4.8	9.9
8	9.3	12	14	12	14	20	25	11	6.3	3.8	5.0	9.8
9	9.3	12	13	10	14	19	25	12	6.0	4.1	4.7	9.8
10	9.1	12	13	12	14	16	23	12	5.7	4.0	4.7	9.7
11	9.2	12	14	12	14	1.2	23	13	5.4	3.9	5.0	9.6
12	9.3	12	15	12	15	1.7	23	12	7.2	3.8	4.6	9.9
13	9.4	12	15	12	15	3.1	19	11	6.3	3.9	4.4	9.7
14	9.9	13	15	12	16	3.1	19	11	5.7	4.1	4.0	9.7
15	10	15	15	12	15	6.1	20	11	4.9	4.2	4.1	9.6
16	11	16	15	12	17	16	21	11	3.8	3.8	4.8	9.6
17	11	16	14	12	17	19	20	11	4.0	3.5	6.4	9.8
18	11	15	15	12	17	25	19	11	4.3	3.4	6.4	9.6
19	11	15	15	12	16	27	19	13	4.6	3.0	6.0	9.6
20	11	15	12	12	17	26	19	13	4.7	3.5	6.6	9.5
21	11	14	13	12	17	25	18	14	5.5	4.1	16	9.8
22	11	13	14	13	18	33	17	14	5.4	4.0	23	9.5
23	12	15	13	13	18	35	16	14	5.0	4.0	19	9.8
24	12	15	13	13	17	35	15	13	5.4	4.2	17	10
25	13	15	14	13	17	33	15	12	5.4	5.4	14	10
26	12	14	13	13	16	31	15	13	4.6	6.1	13	10
27	12	11	14	13	19	30	15	10	4.8	5.2	13	10
28	12	12	15	13	18	30	14	7.9	4.4	6.5	13	9.8
29	12	13	15	13	---	27	14	7.5	4.1	5.4	12	10
30	13	12	13	14	---	15	14	7.7	3.9	4.9	11	11
31	12	---	11	14	---	21	---	7.4	---	4.4	10	---
TOTAL	327.5	395	423	389	439	605.2	591	359.5	165.4	130.0	259.0	295.7
MEAN	10.6	13.2	13.6	12.5	15.7	19.5	19.7	11.6	5.51	4.19	8.35	9.86
MAX	13	16	15	14	19	35	26	14	8.2	6.5	23	11
MIN	8.9	11	11	10	14	1.2	14	7.4	3.8	3.0	4.0	9.5
AC-FT	650	783	839	772	871	1200	1170	713	328	258	514	587

CAL YR 1976 TOTAL 4378.1 MEAN 12.0 MAX 25 MIN 3.1 AC-FT 8680
WTR YR 1977 TOTAL 4379.3 MEAN 12.0 MAX 35 MIN 1.2 AC-FT 8690

06454500 NIOBRARA RIVER ABOVE BOX BUTTE RESERVOIR, NE

LOCATION.--Lat 42°27'35", long 103°10'15", in NE1/4 sec.27, T.29 N., R.50 W., Dawes County, Hydrologic Unit 10150002, on right bank 1 mi (2 km) upstream from high-water line of Box Butte Reservoir and 6 mi (10 km) east of Marsland.

DRAINAGE AREA.--1,400 mi² (3,630 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to current year.

REVISED RECORDS.--WSP 1917: 1951, 1954(P), 1957(M).

GAGE.--Water-stage recorder. Concrete control since Oct. 12, 1953. Datum of gage is 4,012.67 ft (1,223.061 m) above mean sea level. Prior to Nov. 27, 1949, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 12,800 acres (51.8 km²) above station.

AVERAGE DISCHARGE.--31 years, 30.3 ft³/s (0.858 m³/s), 21,950 acre-ft/yr (27.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,950 ft³/s (140 m³/s) July 28, 1951, gage height, 10.30 ft (3.139 m), from rating curve extended above 230 ft³/s (6.51 m³/s) on basis of step-backwater analysis and slope-area measurement at gage height 9.22 ft (2.810 m); minimum daily, 1.6 ft³/s (0.045 m³/s) Sept. 26, 1953.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.83 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 22	0600	202	5.7	5.71	1.740
Aug. 17	0530	*585	16.6	7.52	2.292

Minimum daily discharge, 7.0 ft³/s (0.20 m³/s) July 2,31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	21	21	24	26	34	52	34	16	7.8	9.0	20
2	12	21	22	24	26	36	56	33	16	7.0	8.5	19
3	11	22	21	26	26	36	64	32	12	7.5	9.0	18
4	11	22	21	26	27	29	72	32	12	8.0	9.5	18
5	12	22	22	24	26	28	68	28	12	8.0	14	17
6	12	22	20	26	27	27	57	15	12	8.0	14	17
7	12	22	24	27	27	34	51	44	11	7.5	13	16
8	12	22	25	24	27	43	49	80	10	8.0	13	15
9	12	22	26	24	28	43	43	52	9.5	11	12	13
10	12	22	26	24	28	40	36	52	25	10	12	12
11	12	22	26	22	29	30	38	42	17	9.0	12	12
12	12	22	26	22	29	26	48	38	27	8.5	12	12
13	12	21	27	24	31	22	51	36	20	7.5	12	12
14	12	21	27	22	30	22	53	34	18	7.5	12	12
15	12	30	27	22	32	23	57	32	17	16	12	12
16	12	24	27	24	32	22	60	26	17	12	56	12
17	12	25	27	26	32	26	[illegible]	21	16	11	205	12
18	12	26	28	26	32	29	56	21	17	10	21	12
19	12	26	26	26	32	32	67	22	17	10	24	12
20	12	26	24	28	34	42	65	23	16	12	25	12
21	12	23	24	24	36	48	63	35	22	12	28	12
22	12	24	24	24	38	50	62	39	101	12	28	12
23	12	24	24	26	30	73	60	35	20	12	20	16
24	12	24	25	27	34	86	39	19	22	13	19	16
25	12	26	22	26	31	77	38	22	19	16	20	16
26	12	22	25	26	32	73	39	28	15	14	20	13
27	12	20	27	25	36	77	39	38	16	16	20	12
28	14	20	28	24	34	83	37	25	12	17	20	12
29	14	20	27	24	---	76	36	24	8.0	15	20	12
30	16	20	26	24	---	69	36	22	8.0	13	20	18
31	21	---	24	25	---	56	---	11	---	7.0	20	---
TOTAL	387	684	769	762	852	1387	1440	995	560.5	331.3	816.0	414
MEAN	12.5	22.8	24.8	24.6	30.4	44.7	48.0	32.1	18.7	10.7	26.3	13.8
MAX	21	30	28	28	38	86	72	80	101	17	205	20
MIN	11	20	20	22	26	22	36	11	8.0	7.0	8.5	12
AC-FT	768	1360	1530	1510	1690	2750	2860	1970	1110	657	1620	821

CAL YR 1976 TOTAL 8155.2 MEAN 22.3 MAX 57 MIN 5.4 AC-FT 16180
WTR YR 1977 TOTAL 9397.8 MEAN 25.7 MAX 205 MIN 7.0 AC-FT 18640

06454500 NIOBRARA RIVER ABOVE BOX BUTTE RESERVOIR, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--July 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM, .7UM-MF (COL./ 100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)
OCT 25...	1215	12	380	7.8	4.0	5	10.7	2.2	50	35
NOV 22...	1100	20	430	7.6	1.0	5	10.9	3.3	11	37
DEC 27...	1045	26	420	7.5	2.0	10	10.7	1.4	15	38
JAN 25...	1100	28	375	7.6	1.0	10	11.5	.6	4	17
FEB 23...	1115	23	398	7.5	1.0	20	11.7	4.3	4	30
MAR 28...	1130	86	408	7.4	5.5	20	9.0	5.6	260	440
APR 25...	1115	39	460	7.8	12.0	10	9.1	2.0	13	36
MAY 24...	1115	19	472	7.6	16.0	15	8.5	3.0	230	500
JUN 27...	1050	15	425	7.5	20.0	15	9.5	3.8	120	--
JUL 25...	1050	15	440	7.4	17.0	15	9.0	3.7	700	--
AUG 23...	1100	20	410	7.4	18.5	15	8.9	3.0	220	--
SEP 26...	1045	13	435	7.4	12.0	10	10.4	2.5	110	--

DATE	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)
OCT 25...	--	3.8	273	.37	.03	.27	.30	1.6	.02	.02
NOV 22...	--	4.8	--	.39	.01	.55	.56	1.6	.09	.01
DEC 27...	--	4.6	294	.40	.00	.54	.54	1.9	.04	--
JAN 25...	--	5.4	305	.41	.00	.35	.35	2.1	.02	--
FEB 23...	--	7.0	--	.36	.00	.45	.45	1.4	.07	.03
MAR 28...	--	6.3	285	.39	.03	.68	.71	1.1	.12	--
APR 25...	--	5.4	290	.39	.07	.37	.44	1.9	.05	--
MAY 24...	--	6.4	--	.39	.03	.72	.75	1.4	.06	.02
JUN 27...	300	4.7	263	.36	.04	.29	.33	1.1	.05	--
JUL 25...	1300	4.5	278	.38	.01	.46	.47	1.2	.08	--
AUG 23...	100	5.6	--	.39	.03	.69	.72	1.4	.09	.08
SEP 26...	140	4.6	274	.37	.01	.26	.27	1.6	.02	--

06454500 NIOBRARA RIVER ABOVE BOX BUTTE RESERVOIR, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)
NOV										
22...	1100	3	170	0	52	9.6	24	.8	7.0	255
FEB										
23...	1115	12	150	0	47	9.0	22	.8	6.7	210
MAY										
24...	1115	7	170	0	54	9.5	26	.9	7.0	250
AUG										
23...	1100	15	170	0	53	8.1	24	.8	7.7	240

DATE	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)
NOV										
22...	0	209	11	.7	50	285	7	50	0	0
FEB										
23...	0	172	33	.6	39	268	--	60	--	--
MAY										
24...	0	210	14	.8	47	286	5	50	1	0
AUG										
23...	0	200	20	.7	49	287	--	70	--	--

DATE	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUS-PENDED MERCURY (HG) (UG/L) (71895)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)
NOV										
22...	3	30	1	10	.0	.0	.0	1	0	10
FEB										
23...	--	180	--	20	--	--	--	--	--	--
MAY										
24...	190	30	8	20	.0	.0	.0	0	0	20
AUG										
23...	--	30	--	8	--	--	--	--	--	--

06455000 BOX BUTTE RESERVOIR NEAR HEMINGFORD, NE

LOCATION.--Lat 42°27'30", long 103°04'03", in sec.28, T.29 N., R.49 W., Dawes County, Hydrologic Unit 10150002, in control tower on dam near left bank on Niobrara River, 9 mi (14 km) north of Hemingford.

DRAINAGE AREA.--1,460 mi² (3,780 km²), approximately.

PERIOD OF RECORD.--October 1945 to current year.

GAGE.--Electric tape gage read three or more times a month. Datum of gage is at mean sea level.

REMARKS.--Reservoir is formed by earthfill dam; outlet gate first closed Oct. 3, 1945. Usable capacity, 30,420 acre-ft (37.5 hm³) between elevations 3,969.00 ft (1,209.751 m), sill of outlet gate, and 4,007.00 ft (1,221.334 m), crest of spillway. Dead storage, 640 acre-ft (0.789 hm³). Figures given herein represent total contents. Water is used for irrigation of Mirage Flats project of Bureau of Reclamation.

COOPERATION.--Records of elevations and capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 32,210 acre-ft (39.7 hm³) Mar. 26, 1948, elevation, 4,007.70 ft (1,221.547 m); minimum observed since operation of reservoir began, 764 acre-ft (0.942 hm³) Aug. 23 to Sept. 14, 1976, elevation, 3,969.82 ft (1,210.001 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 15,010 acre-ft (18.5 hm³) June 19, elevation, 3,994.90 ft (1,217.646 m); minimum observed, 1,480 acre-ft (1.82 hm³) Oct. 14, elevation, 3,973.45 ft (1,211.108 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet) a/	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	3,972.97	1,370	-
Oct. 31	3,976.28	2,210	+840
Nov. 30	3,980.04	3,740	+1,530
Dec. 31	3,982.96	5,280	+1,540
CAL YR 1976			-770
Jan. 31	3,985.30	6,680	+1,400
Feb. 28	3,987.79	8,450	+1,770
Mar. 31	3,990.86	11,040	+2,590
Apr. 30	3,993.31	13,370	+2,330
May 31	3,994.73	14,830	+1,460
June 30	3,991.20	11,350	-3,480
July 31	3,985.39	6,740	-4,610
Aug. 31	3,980.18	3,800	-2,940
Sept. 30	3,982.12	4,810	+1,010
WTR YR 1977	-	-	+3,440

a Elevations read on or near last day of month.

06455500 NIOBRARA RIVER BELOW BOX BUTTE RESERVOIR, NE

LOCATION.--Lat 42°27'25", long 103°04'05", in SE1/4 sec.28, T.29 N., R.49 W., Dawes County, Hydrologic Unit 10150003, on left bank 0.2 mi (0.3 km) downstream from Box Butte Reservoir and 9 mi (14 km) north of Hemingford.

DRAINAGE AREA.--1,460 mi² (3,780 km²), approximately.

PERIOD OF RECORD.--October 1946 to current year.

GAGE.--Water-stage recorder. Concrete control since Apr. 11, 1953. Datum of gage is 3,950.08 ft (1,203.984 m) above mean sea level.

REMARKS.--Records good except those below 2 ft³/s (0.057 m³/s), which are fair. Flow completely regulated by Box Butte Reservoir (station 06455000).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 616 ft³/s (17.4 m³/s) July 2, 1968, gage height, 5.04 ft (1.536 m); minimum daily, 0.10 ft³/s (0.003 m³/s) for many days in 1947, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 201 ft³/s (5.69 m³/s) July 1, gage height, 4.37 ft (1.332 m); minimum daily, 0.54 ft³/s (0.015 m³/s) Oct. 1,2,9-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.54	.66	.70	.74	.74	.83	.95	1.1	.98	195	85	24
2	.54	.66	.68	.71	.74	.86	.92	1.1	1.0	195	127	.83
3	.56	.66	.68	.71	.74	.80	.95	1.1	1.0	195	148	.74
4	1.1	.66	.68	.74	.74	.80	.95	1.1	.98	186	143	.71
5	.58	.66	.68	.74	.74	.80	.92	1.1	.98	172	129	.68
6	.61	.66	.68	.74	.77	.80	.89	1.2	1.0	148	99	.68
7	.58	.66	.71	.74	.77	.80	.89	1.2	.98	134	85	.66
8	.56	.66	.71	.68	.77	.80	.86	1.2	.98	125	72	.61
9	.54	.66	.74	.68	.77	.80	.86	1.2	.98	82	50	.63
10	.54	.66	.74	.66	.77	.80	.86	1.1	.95	43	49	.63
11	.54	.66	.74	.66	.77	.70	1.9	1.1	1.1	59	49	.63
12	.54	.66	.77	.66	.77	.70	1.2	1.1	1.3	77	49	.71
13	.54	.66	.80	.68	.77	.80	1.1	1.1	1.1	107	49	.71
14	.54	.66	.77	.68	.77	.83	1.1	1.1	1.0	139	50	.74
15	.54	.66	.77	.71	.80	.80	1.1	1.1	1.0	151	50	.74
16	.54	.66	.71	.74	.80	.80	1.1	1.0	1.0	153	50	.77
17	.54	.66	.74	.74	.80	.83	1.0	1.0	1.0	161	50	.77
18	.56	.66	.74	.77	.80	.80	1.0	1.1	1.0	164	50	.77
19	.56	.66	.71	.80	.80	.80	1.1	1.1	18	158	52	.77
20	.56	.66	.71	.80	.80	.77	1.1	1.1	73	61	56	.77
21	.58	.66	.71	.80	.80	.77	1.0	1.2	73	.89	65	.77
22	.58	.66	.71	.80	.80	.80	1.0	1.1	73	.80	82	.77
23	.58	.68	.71	.80	.83	.86	1.0	1.1	79	.77	81	.80
24	.61	.68	.71	.77	.83	.83	1.0	1.0	99	31	78	.77
25	.61	.68	.71	.80	.83	.80	1.1	1.3	112	67	78	.77
26	.61	.68	.71	.77	.83	.80	1.1	1.4	125	46	78	.77
27	.63	.68	.74	.77	.83	.80	1.1	1.3	156	54	78	.77
28	.63	.68	.71	.77	.83	.98	1.1	1.1	183	60	67	.77
29	.63	.66	.71	.74	---	.95	1.1	1.0	195	46	46	.77
30	.66	.68	.74	.74	---	.92	1.1	1.0	192	39	40	.89
31	.66	---	.74	.74	---	.92	---	1.0	---	49	39	---
TOTAL	18.39	19.94	22.36	22.88	22.01	25.35	31.35	34.7	1396.33	3099.46	2224	45.40
MEAN	.59	.66	.72	.74	.79	.82	1.05	1.12	46.5	100	71.7	1.51
MAX	1.1	.68	.80	.80	.83	.98	1.9	1.4	195	195	148	24
MIN	.54	.66	.68	.66	.74	.70	.86	1.0	.95	.77	39	.61
AC-FT	36	40	44	45	44	50	62	69	2770	6150	4410	90

CAL YR 1976 TOTAL 7591.77 MEAN 20.7 MAX 217 MIN .54 AC-FT 15060
WTR YR 1977 TOTAL 6962.17 MEAN 19.1 MAX 195 MIN .54 AC-FT 13810

06457500 NIOBRARA RIVER NEAR GORDON, NE

LOCATION.--Lat 42°38'00", long 102°12'40", in NE1/4 sec.26, T.31 N., R.42 W., Sheridan County, Hydrologic Unit 10150003, on left bank 250 ft (76 m) upstream from bridge on State Highway 27, 4 mi (6 km) downstream from Rush Creek, and 11 mi (18 km) south of Gordon.

DRAINAGE AREA.--4,290 mi^2 (11,100 km^2), approximately.

PERIOD OF RECORD.--August 1928 to September 1932, October 1945 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,433.49 ft (1,046.528 m) above mean sea level. Aug. 24, 1928, to June 30, 1932, nonrecording gage at bridge 4 mi (6 km) downstream at different datum. Dec. 3, 1945, to Mar. 24, 1970, water-stage recorder at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by storage in Box Butte Reservoir (station 06455000) for irrigation of Mirage Flats project and return flow from irrigated land.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,130 ft^3/s (259 m^3/s) May 21, 1962, gage height, 5.25 ft (1.600 m); minimum daily, 16 ft^3/s (0.45 m^3/s) Dec. 20, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 878 ft^3/s (24.9 m^3/s) May 8, gage height, 1.92 ft (0.585 m); minimum daily, 58 ft^3/s (1.64 m^3/s) July 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	94	90	98	96	135	169	100	114	63	65	104
2	80	95	88	96	100	135	190	102	110	63	66	95
3	78	97	86	98	100	130	171	99	105	62	71	111
4	78	97	94	100	104	130	161	108	103	79	76	106
5	83	98	94	104	104	135	162	105	94	77	89	100
6	101	100	100	104	104	135	157	111	87	70	104	96
7	106	99	96	108	110	136	163	152	84	68	94	97
8	96	101	96	100	110	146	169	351	79	64	92	92
9	91	97	100	96	120	149	185	164	78	96	96	88
10	87	97	102	94	140	151	177	109	80	90	88	88
11	86	99	110	94	150	155	175	103	79	73	83	88
12	86	90	120	92	160	140	188	109	104	66	82	90
13	86	90	125	92	178	145	186	107	115	65	78	91
14	86	94	130	94	151	148	191	102	97	63	87	105
15	87	100	135	90	136	170	188	107	83	64	85	92
16	91	110	135	90	143	183	216	111	77	64	83	87
17	93	118	135	86	143	194	208	115	81	62	85	92
18	94	106	140	86	123	200	171	113	79	61	83	92
19	94	107	130	82	114	197	152	118	80	58	82	88
20	96	109	125	82	118	188	164	119	82	89	80	89
21	98	110	125	86	123	165	161	152	103	130	79	90
22	100	113	130	88	130	146	148	165	97	133	84	93
23	96	118	140	90	138	153	130	161	124	98	96	92
24	92	119	140	92	130	162	124	130	92	92	94	94
25	97	119	140	94	125	169	116	122	76	96	95	95
26	100	112	140	96	128	172	112	150	70	87	100	93
27	97	100	145	94	135	169	107	205	68	85	101	93
28	96	100	145	90	133	178	102	128	66	85	95	92
29	97	92	130	90	---	167	103	119	65	80	94	90
30	94	92	84	90	---	133	104	125	60	67	95	105
31	93	---	100	94	---	143	---	119	---	66	97	---
TOTAL	2839	3073	3650	2890	3546	4859	4750	4081	2632	2416	2699	2828
MEAN	91.6	102	118	93.2	127	157	158	132	87.7	77.9	87.1	94.3
MAX	106	119	145	108	178	200	216	351	124	133	104	111
MIN	78	90	84	82	96	130	102	99	60	58	65	87
AC-FT	5630	6100	7240	5730	7030	9640	9420	8090	5220	4790	5350	5610

CAL YR 1976 TOTAL 36107 MEAN 98.7 MAX 188 MIN 55 AC-FT 71620
WTR YR 1977 TOTAL 40263 MEAN 110 MAX 351 MIN 58 AC-FT 79860

06459200 SNAKE RIVER ABOVE MERRITT RESERVOIR, NE

LOCATION.--Lat 42°36'12", long 101°04'14", in NW1/4SW1/4 sec.3, T.30 N., R.32 W., Cherry County, Hydrologic Unit 10150005, on left bank 0.2 mi (0.3 km) south of Nebraska National Forest boundary fence, 2.6 mi (4.2 km) upstream from Shelbourn Bridge, 7.1 mi (11.4 km) southeast of headquarters for Nebraska National Forest (Niobrara Division), 12.4 mi (20.0 km) upstream from Boardman Creek, and 16.9 mi (27.2 km) upstream from Merritt Dam. Prior to Sept. 9, 1977, at site 2.4 mi (3.9 km) downstream.

DRAINAGE AREA.--440 mi² (1,140 km²), approximately, of which about 28 mi² (73 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1962 to current year.

REVISED RECORDS.--WDR NE-72: Drainage area.

GAGE.--Water-stage recorder. Prior to Sept. 9, 1977, at site 2.4 mi (3.9 km) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Record of water temperatures for the water year 1977 are not published because temperature bulb was buried in the sand and did not record true maximum and minimum water temperature for most days during the year. Periodic temperature and conductance measurements are published in tables for water quality at miscellaneous sites.

AVERAGE DISCHARGE.--15 years, 204 ft³/s (5.777 m³/s), 147,800 acre-ft/yr (0.182 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 637 ft³/s (18.0 m³/s) Aug. 12, 1966, gage height, 2.43 ft (0.741 m); maximum gage height, 8.63 ft (2.630 m) Mar. 14, 1977, ice jam; minimum daily discharge, 89 ft³/s (2.52 m³/s) Dec. 13, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since October 1960, 820 ft³/s (23.2 m³/s) June 30, 1962, gage height, 2,953.46 ft (900.215 m) above mean sea level, from high-water profiles at reference point on downstream side of Shelbourn Bridge 1,200 ft (370 m) downstream, result of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s (9.91 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 14	0315	Ice jam		*8.63	2.630	May 21	2045	*452	12.8	4.04	1.231
Mar. 25	1645	420	11.9	3.96	1.207						

Minimum daily discharge, 145 ft³/s (4.11 m³/s) Jan. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	188	187	200	185	210	200	231	241	191	162	176	197
2	186	196	210	180	215	204	230	230	189	161	176	194
3	188	185	220	185	215	160	254	227	186	165	183	194
4	180	185	220	180	220	170	288	227	183	164	179	202
5	181	186	200	180	205	200	249	217	183	163	183	203
6	204	188	204	185	200	205	243	217	180	168	192	193
7	228	188	213	190	215	212	269	292	179	172	189	195
8	212	194	214	180	218	223	272	278	178	172	195	196
9	198	193	221	170	203	227	265	275	175	205	196	186
10	195	192	209	160	205	239	255	261	174	206	198	180
11	193	193	209	165	206	260	250	239	180	192	203	175
12	191	189	205	170	205	240	263	228	202	178	192	170
13	190	187	204	175	215	250	245	222	230	176	182	165
14	189	192	207	175	208	310	250	217	195	178	200	160
15	184	195	211	170	207	296	260	214	182	178	205	161
16	182	196	208	165	210	281	266	212	177	176	201	168
17	180	197	210	145	218	276	270	220	221	172	188	173
18	187	206	214	170	213	242	285	225	199	175	188	170
19	181	206	211	160	211	246	248	236	186	169	187	167
20	182	204	198	180	206	235	277	220	186	169	181	170
21	183	200	214	185	206	216	272	307	234	176	184	179
22	182	195	209	180	206	216	264	295	220	187	191	170
23	184	192	213	190	240	239	239	264	202	193	206	171
24	186	195	209	185	215	280	229	244	188	207	198	167
25	184	198	209	180	200	333	226	223	180	192	207	167
26	185	190	211	165	193	329	222	244	175	191	235	176
27	188	160	217	150	193	307	221	235	170	188	231	179
28	186	170	221	170	198	308	219	213	176	186	209	179
29	185	185	213	190	---	293	256	201	170	184	199	182
30	187	200	170	200	---	247	256	203	163	175	193	198
31	186	---	180	220	---	195	---	195	---	171	201	---
TOTAL	5855	5734	6454	5485	5848	7639	7574	7322	5654	5551	6048	5383
MEAN	189	191	208	177	209	246	252	236	188	179	195	179
MAX	228	206	221	220	240	333	288	307	234	207	235	203
MIN	180	160	170	145	193	160	219	195	163	161	176	160
AC-FT	11610	11370	12800	10880	11600	15150	15020	14520	11210	11010	12000	10680

CAL YR 1976 TOTAL 72164 MEAN 197 MAX 337 MIN 160 AC-FT 143100
WTR YR 1977 TOTAL 74547 MEAN 204 MAX 333 MIN 145 AC-FT 147900

06459200 SNAKE RIVER ABOVE MERRITT RESERVOIR, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	TEMPERATURE (DEG C) (00010)
OCT , 1976				
06...	1050	199	209	9.0
NOV				
02...	1055	192	162	7.0
DEC				
07...	1120	218	153	.5
JAN , 1977				
18...	1120	176	166	.0
FEB				
08...	1115	209	158	.5
MAR				
08...	1020	227	168	6.5
APR , 1977				
13...	1020	240	168	8.0
MAY				
03...	0950	236	193	13.0
JUN				
15...	1100	188	175	25.0
JUL				
07...	1130	177	184	20.0
SEP				
07...	1050	200	190	19.0

06459300 MERRITT RESERVOIR NEAR BURGE, NE

LOCATION.--Lat 42°38'06", long 100°52'18", in SW1/4NW1/4 sec.29, T.31 N., R.30 W., Cherry County, Hydrologic Unit 10150005, in control house of outlet works of Merritt Dam, 8.1 mi (13.0 km) southwest of Burge and 23 mi (37 km) southwest of Valentine.

DRAINAGE AREA.--640 mi^2 (1,660 km^2), approximately, of which about 44 mi^2 (110 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--February 1964 to current year.

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Direct reading, single vertical column, mercury-well type manometer read once daily. Datum of gage is at mean sea level.

REMARKS.-- Reservoir is formed by earthfill dam; storage began Feb. 19, 1964. Usable capacity, 72,872 acre-ft (89.9 hm^3) between elevations 2,875.0 ft (876.30 m), sill of canal outlet works, and 2,946.0 ft (897.94 m), crest of spillway. Dead and inactive storage, 1,614 acre-ft (1.99 hm^3) below elevation 2,875.0 ft (876.30 m). Figures given herein represent total contents. Water is used for irrigation of Ainsworth Unit of Bureau of Reclamation.

COOPERATION.--Records of elevation and capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 76,840 acre-ft (94.7 hm^3) May 4, 1971, May 28 to June 2, 1976, elevation 2,946.8 ft (898.18 m); minimum since appreciable storage was attained, 20,060 acre-ft (24.7 hm^3) Oct. 1, 1968, elevation, 2,916.1 ft (888.83 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 75,370 acre-ft (92.9 hm^3) Mar. 29, 30, elevation, 2,946.3 ft (898.03 m); minimum observed, 38,490 acre-ft (47.5 hm^3) Oct. 1, elevation, 2,930.3 ft (893.16 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2,930.0	37,980	-
Oct. 31	2,937.3	52,110	+14,130
Nov. 30	2,942.0	63,480	+11,370
Dec. 31	2,943.9	68,560	+5,080
CAL YR 1976	-	-	+7,140
Jan. 31	2,944.0	68,830	+270
Feb. 28	2,944.0	68,830	0
Mar. 31	2,946.2	75,080	+6,250
Apr. 30	2,946.0	74,490	-590
May 31	2,946.1	74,780	+290
June 30	2,946.0	74,490	-290
July 31	2,940.4	59,410	-15,080
Aug. 31	2,937.8	53,230	-6,180
Sept. 30	2,941.4	61,940	+8,710
WTR YR 1977	-	-	+23,960

06459500 SNAKE RIVER NEAR BURGE, NE

LOCATION.--Lat 42°39'15", long 100°51'20", in NE1/4 sec.20, T.31 N., R.30 W., Cherry County, Hydrologic Unit 10150005, on right bank 150 ft (46 m) downstream from Nebraska National Forest boundary, 2.1 mi (3.4 km) downstream from Merritt Dam, 6.5 mi (10.5 km) southwest of Burge, and 22 mi (35 km) southwest of Valentine.

DRAINAGE AREA.--660 mi² (1,710 km²), approximately, of which about 44 mi² (110 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--June 1947 to current year.

REVISED RECORDS.--WSP 1279: 1950(M), 1951(P). WDR NE-67,72: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,805.36 ft (855.074 m) above mean sea level, (levels by Bureau of Reclamation).

REMARKS.--Records good. Natural flow affected by storage in Merritt Reservoir (station 06459300) 2.1 mi (3.4 km) upstream.

AVERAGE DISCHARGE.--14 years (1963-77), 149 ft³/s (4.220 m³/s), 108,000 acre-ft/yr (0.133 hm³/yr), since storage and diversion began.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,170 ft³/s (89.8 m³/s) Feb. 7, 1963, gage height, 6.96 ft (2.121 m), release of storage behind temporary construction dike, from rating curve extended above 520 ft³/s (14.7 m³/s) on basis of slope-area measurement at gage height 5.39 ft (1.643 m); minimum daily, 5.8 ft³/s (0.16 m³/s) May 24-27, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 545 ft³/s (15.4 m³/s) Mar. 29, gage height, 2.79 ft (0.850 m); minimum daily, 10 ft³/s (0.28 m³/s) Nov. 17-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	12	38	192	218	218	396	236	189	19	17	15
2	12	12	38	192	103	218	341	182	195	20	17	15
3	12	12	38	192	60	218	297	220	146	16	17	15
4	12	12	38	192	241	218	285	244	114	17	17	15
5	12	12	38	192	255	218	284	242	111	16	17	15
6	12	12	38	192	255	224	284	219	112	16	17	15
7	12	12	39	193	255	155	284	258	115	16	18	15
8	12	12	39	187	255	99	288	286	113	16	17	15
9	12	12	58	186	250	99	299	290	112	17	17	15
10	12	11	72	186	250	99	296	299	88	16	17	15
11	12	11	72	186	252	101	296	284	83	16	17	15
12	12	12	72	186	252	101	295	289	86	16	16	15
13	12	11	93	186	252	99	298	289	110	16	16	15
14	12	11	131	187	252	99	304	251	154	16	16	15
15	12	11	175	186	252	99	304	177	153	16	16	15
16	12	11	186	186	252	99	303	141	145	16	16	15
17	12	10	192	186	252	99	306	120	168	17	16	15
18	13	10	192	186	252	99	307	126	150	17	16	15
19	13	10	192	187	231	99	309	120	150	17	16	15
20	13	11	196	186	218	99	317	120	150	17	16	15
21	13	11	196	186	218	183	315	131	155	17	16	16
22	12	25	196	186	218	245	324	221	158	17	16	15
23	12	37	199	186	218	261	320	289	158	18	16	27
24	12	37	200	186	218	276	317	348	158	18	16	36
25	12	37	200	186	218	284	314	329	163	17	16	36
26	12	37	200	183	218	328	318	313	155	17	16	36
27	12	38	200	205	218	342	286	311	150	17	15	36
28	12	38	199	221	218	367	246	300	127	17	15	36
29	12	38	198	221	---	462	238	256	85	17	15	36
30	12	38	196	221	---	495	241	235	31	17	15	37
31	12	---	196	218	---	455	---	208	---	17	15	---
TOTAL	376	563	4117	5965	6351	6458	9012	7334	3968	522	503	611
MEAN	12.1	18.8	133	192	227	208	300	237	132	16.8	16.2	20.4
MAX	13	38	200	221	255	495	396	348	195	20	18	37
MIN	12	10	38	183	60	99	238	120	31	16	15	15
AC-FT	746	1120	8170	11830	12600	12810	17880	14550	7870	1040	998	1210

CAL YR 1976 TOTAL 33249 MEAN 90.8 MAX 266 MIN 10 AC-FT 65950
WTR YR 1977 TOTAL 45780 MEAN 125 MAX 495 MIN 10 AC-FT 90800

06461000 MINNECHADUZA CREEK AT VALENTINE, NE

LOCATION.--Lat 42°53'10", long 100°33'10", in SW1/4 sec.30, T.34 N., R.27 W., Cherry County, Hydrologic Unit 10150004, on right bank 500 ft (152 m) downstream from powerplant in city park at north edge of Valentine and 4 mi (6 km) upstream from mouth.

DRAINAGE AREA.--390 mi² (1,010 km²), approximately, of which about 200 mi² (520 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--December 1947 to current year.

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,470 ft (753 m), from topographic map.

REMARKS.--Records fair. Flow regulated by powerplant 500 ft (152 m) above station.

AVERAGE DISCHARGE.--29 years (1948-77), 33.7 ft³/s (0.954 m³/s), 24,420 acre-ft/yr (30.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,100 ft³/s (31.2 m³/s) Mar. 22, 1960, gage height, 8.00 ft (2.438 m); minimum daily, 2.6 ft³/s (0.074 m³/s) Feb. 22, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 379 ft³/s (10.7 m³/s) Mar. 26, gage height, 4.04 ft (1.231 m); minimum daily, 5.1 ft³/s (0.14 m³/s) July 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	25	13	7.2	19	37	72	51	59	20	13	38
2	18	24	31	27	14	24	99	52	59	28	17	20
3	15	5.4	32	7.3	28	16	187	47	49	38	16	30
4	10	23	6.8	38	23	14	275	47	40	32	17	31
5	7.6	16	33	17	19	18	194	47	42	5.1	16	22
6	24	21	21	16	23	43	167	41	39	38	25	42
7	9.9	15	16	30	18	27	140	51	35	12	20	20
8	23	25	27	6.8	23	53	131	60	30	18	18	36
9	15	24	26	27	24	37	132	76	32	34	69	23
10	15	19	28	15	24	60	102	55	24	50	49	14
11	19	24	7.2	12	33	65	92	72	33	34	39	36
12	15	5.6	31	17	19	33	94	59	29	23	41	20
13	19	5.6	17	17	32	9.4	89	45	33	28	33	32
14	17	33	36	24	24	9.4	80	38	34	24	30	28
15	15	16	27	6.0	36	16	94	45	28	19	38	28
16	26	21	27	24	24	21	78	39	26	13	35	26
17	5.4	24	33	11	42	66	154	31	90	22	35	33
18	15	29	7.3	15	42	65	129	33	71	15	33	29
19	20	25	35	19	27	66	108	48	40	16	32	20
20	15	21	18	19	26	74	111	36	41	14	24	33
21	20	21	18	19	43	75	99	51	47	23	30	28
22	24	16	24	5.4	37	68	87	62	40	12	31	33
23	5.4	21	32	24	28	65	83	71	40	25	26	33
24	10	37	7.2	17	22	81	84	81	37	23	30	28
25	25	22	44	24	30	111	60	86	29	55	32	33
26	18	14	7.2	24	29	224	59	89	27	19	32	22
27	25	6.3	32	19	30	236	48	74	30	26	39	7.1
28	15	27	16	24	37	197	49	72	13	28	34	18
29	24	16	31	24	---	176	49	70	45	19	18	21
30	16	23	17	15	---	142	51	63	15	17	31	36
31	15	---	31	23	---	107	---	63	---	19	18	---
TOTAL	509.7	604.9	731.7	573.7	776	2235.8	3197	1755	1157	749.1	921	820.1
MEAN	16.4	20.2	23.6	18.5	27.7	72.1	107	56.6	38.6	24.2	29.7	27.3
MAX	26	37	44	38	43	236	275	89	90	55	69	42
MIN	5.4	5.4	6.8	5.4	14	9.4	48	31	13	5.1	13	7.1
AC-FT	1010	1200	1450	1140	1540	4430	6340	3480	2290	1490	1830	1630

CAL YR 1976 TOTAL 7463.3 MEAN 20.4 MAX 51 MIN 5.1 AC-FT 14800
WTR YR 1977 TOTAL 14031.0 MEAN 38.4 MAX 275 MIN 5.1 AC-FT 27830

06461500 NIOBRARA RIVER NEAR SPARKS, NE

LOCATION.--Lat 42°54'10", long 100°21'40", in SE1/4 sec.22, T.34 N., R.26 W., Cherry County, Hydrologic Unit 10150004, on left bank 10 ft (3 m) downstream from highway bridge, 2.2 mi (3.5 km) downstream from Big Beaver Creek, 5.5 mi (8.9 km) downstream from Minnechaduza Creek, and 6.5 mi (10.5 km) southwest of Sparks.

DRAINAGE AREA.--8,090 mi² (21,000 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1209: 1947(M), 1948-50(P). WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,287.57 ft (697.251 m) above mean sea level.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by irrigation and power developments, storage in Box Butte Reservoir (station 06455000), and since May 1964 by storage in Merritt Reservoir (station 06459300). Periodic temperature and conductance measurements are published in tables for water quality at miscellaneous sites.

AVERAGE DISCHARGE.--32 years, 783 ft³/s (22.17 m³/s), 567,300 acre-ft/yr (0.699 km³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft³/s (289 m³/s) Mar. 5, 1949, gage height, 6.73 ft (2.051 m), from rating curve extended above 3,800 ft³/s (108 m³/s); maximum gage height recorded, 10.06 ft (3.066 m) Feb. 7, 1973, ice jam; minimum daily discharge, 100 ft³/s (2.83 m³/s) Jan. 10, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,280 ft³/s (92.9 m³/s) Mar. 12, gage height, 4.45 ft (1.356 m); maximum gage height, 6.04 ft (1.841 m) Feb. 17, ice jam; minimum daily discharge, 200 ft³/s (5.66 m³/s) Nov. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	433	482	420	560	720	816	1150	905	764	482	422	502
2	437	508	520	540	700	782	1180	828	764	499	431	468
3	438	491	600	580	800	782	1270	818	751	428	432	470
4	428	526	600	560	820	749	1420	865	641	405	448	484
5	419	517	580	540	800	749	1380	843	611	364	443	486
6	450	508	560	600	800	760	1250	839	597	422	472	502
7	517	508	540	640	900	839	1180	1080	593	421	498	459
8	529	526	480	620	960	741	1150	1020	577	446	568	467
9	499	508	540	600	1000	709	1180	1370	582	540	794	447
10	482	508	600	580	1040	743	1200	1190	560	804	730	426
11	482	526	660	620	1080	888	1180	993	536	514	699	444
12	489	535	600	600	1100	670	1280	897	576	605	589	435
13	466	466	620	620	1140	719	1190	885	620	475	525	456
14	466	510	660	640	1100	691	1180	862	627	424	525	443
15	458	534	700	620	1060	788	1180	770	680	411	538	438
16	482	529	800	620	1120	744	1190	739	629	392	550	433
17	474	604	840	620	1180	766	1180	689	706	399	577	468
18	500	549	840	680	1160	801	1290	708	889	389	534	481
19	535	536	740	660	1060	837	1230	760	667	399	532	465
20	474	524	700	700	960	851	1400	693	566	386	504	466
21	474	532	720	760	839	822	1210	809	576	410	509	469
22	500	520	740	780	839	907	1150	1110	609	411	502	483
23	474	490	760	800	909	919	1090	1040	699	450	503	473
24	491	500	800	740	874	991	1030	1040	634	686	512	476
25	517	500	860	720	862	1060	984	1020	617	716	533	493
26	500	480	860	720	828	1170	968	1080	641	535	594	489
27	517	320	840	700	804	1300	929	1040	585	483	609	499
28	500	210	700	680	793	1320	911	1100	571	495	529	512
29	500	200	580	620	---	1470	985	936	562	444	491	519
30	491	360	480	640	---	1440	954	856	462	443	492	705
31	500	---	450	680	---	1240	---	824	---	434	481	---
TOTAL	14911	14515	20390	19920	26240	28060	34791	28599	18863	14540	16576	14354
MEAN	481	484	658	643	937	905	1160	923	629	469	535	478
MAX	535	604	860	800	1180	1470	1420	1370	889	804	794	705
MIN	419	200	420	540	700	670	911	689	462	364	422	426
AC-FT	29580	28790	40440	39510	52080	55660	69010	56730	37410	28840	32870	28470

CAL YR 1976 TOTAL 218664 MEAN 597 MAX 1220 MIN 200 AC-FT 433700
WTR YR 1977 TOTAL 251764 MEAN 690 MAX 1470 MIN 200 AC-FT 499400

06461500 NIOBRARA RIVER NEAR SPARKS, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976-1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE (DEG C) (00010)
OCT , 1976				
07...	0955	509	227	9.0
NOV				
01...	1620	203	240	9.5
DEC				
06...	1530	574	219	.0
FEB , 1977				
08...	1800	916	212	.5
MAR				
07...	1545	836	226	7.0
APR				
13...	1720	1150	238	14.0
MAY , 1977				
03...	1710	838	237	19.5
JUN				
14...	1615	725	219	20.5
JUL				
06...	1645	530	259	28.0
AUG				
18...	0910	496	248	20.5
SEP				
27...	1130	486	237	14.5

06462000 NIOBRARA RIVER NEAR NORDEN, NE

LOCATION.--Lat 42°47'13", long 100°02'06", in N1/2SW1/4 sec.33, T.33 N., R.23 W., Keya Paha County, Hydrologic Unit 10150004, on left bank 60 ft (18 m) downstream from county road bridge, 1.5 mi (2.4 km) downstream from Fairfield Creek, and 6 mi (10 km) south of Norden.

DRAINAGE AREA.--8,390 mi² (21,700 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,109.93 ft (643.107 m) above mean sea level.

REMARKS.--Records good except those for winter period, which are poor. Flow affected by regulation at powerplants, diversions for irrigation, return flow from irrigated areas, storage in Box Butte Reservoir (station 06455000), and since May 1968 storage in Merritt Reservoir (station 06459300).

AVERAGE DISCHARGE.--25 years, 866 ft³/s (24.53 m³/s), 627,400 acre-ft/yr (0.774 km³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,380 ft³/s (209 m³/s) July 1, 1962, gage height, 7.10 ft (2.164 m), backwater from bridge in channel; maximum gage height, 10.24 ft (3.121 m) Mar. 11, 1966, ice jam and backwater from bridge in channel; minimum daily discharge, 130 ft³/s (3.68 m³/s) Jan. 10, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,410 ft³/s (68.3 m³/s) May 9, gage height, 3.06 ft (0.933 m); maximum gage height, 4.16 ft (1.268 m) Mar. 3, ice jam; minimum daily discharge, 280 ft³/s (7.93 m³/s) Nov. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	591	609	500	600	820	972	1390	990	960	532	553	565
2	559	570	580	600	800	944	1420	1010	933	579	554	579
3	569	625	620	640	860	920	1470	956	899	576	547	560
4	561	604	620	680	880	880	1700	985	839	532	547	599
5	551	625	600	640	840	960	1580	994	766	510	540	599
6	567	615	620	640	860	1160	1050	961	750	541	550	565
7	636	604	560	740	900	983	1350	1360	732	540	573	589
8	653	610	520	720	920	925	1330	1600	719	529	639	596
9	643	604	620	680	920	896	1330	1720	726	507	770	585
10	616	574	660	640	980	929	1410	1690	723	909	829	557
11	612	599	760	700	1020	1360	1380	1360	697	661	770	542
12	614	610	660	680	1100	1030	1490	1190	859	580	703	560
13	594	490	680	700	1200	807	1470	1110	798	570	608	560
14	597	550	720	740	1160	1060	1410	1070	740	551	616	566
15	590	620	760	700	1100	969	1390	1010	776	532	599	551
16	607	640	880	680	1410	932	1470	909	766	545	601	551
17	615	700	920	680	1370	984	1430	798	1240	528	624	584
18	590	760	940	740	1310	1090	1540	809	965	538	605	601
19	663	700	900	780	1250	1130	1580	881	782	538	560	590
20	629	665	800	820	1240	1150	1870	860	716	501	570	569
21	589	675	800	860	1120	1060	1730	1510	752	530	554	633
22	602	620	860	840	1220	1090	1480	1510	764	567	560	596
23	615	600	880	900	1080	1160	1340	1210	708	568	574	595
24	600	620	900	860	1060	1260	1280	1190	746	725	565	592
25	636	640	980	840	1040	1350	1200	1260	712	888	594	606
26	647	620	980	780	1020	1450	1120	1330	724	675	666	613
27	624	500	940	740	1010	1620	1090	1260	690	630	702	605
28	643	300	940	720	972	1610	1020	1260	685	644	636	629
29	617	280	800	680	---	1800	1090	1340	686	617	615	647
30	630	430	640	740	---	1720	1170	1160	620	570	576	739
31	625	---	560	780	---	1690	---	1070	---	562	574	---
TOTAL	18893	17639	23160	22560	29462	35569	41980	36102	23523	18353	18954	17663
MEAN	609	588	747	728	1052	1147	1399	1165	784	592	611	589
MAX	663	760	980	900	1410	1800	1870	1720	1240	909	829	739
MIN	551	280	500	600	800	807	1020	798	620	501	540	542
AC-FT	37470	34990	45940	44750	58440	70550	83270	71610	46660	36400	37600	35030

CAL YR 1976 TOTAL 261171 MEAN 714 MAX 1400 MIN 280 AC-FT 518000
WTR YR 1977 TOTAL 303858 MEAN 832 MAX 1870 MIN 280 AC-FT 602700

06462000 NIOBRARA RIVER NEAR NORDEN, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-66, 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1974 to current year.
WATER TEMPERATURES: August 1974 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 489 micromhos June 29, 1976; minimum daily, 155 micromhos May 30, 1977.
WATER TEMPERATURES: Maximum, 27.0°C June 27, 28, 29, July 1, 2, 1975; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 320 micromhos Dec. 7; minimum daily, 155 micromhos May 30.
WATER TEMPERATURES: Maximum, 25.0°C July 4; minimum, 0.0°C on several days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)
NOV										
03...	1105	619	242	7.7	6.5	3	100	0	33	4.2
17...	1050	726	205	7.6	2.0	4	89	0	29	4.1
DEC										
08...	1040	522	238	7.4	.5	6	96	0	31	4.5
FEB										
09...	1100	935	201	7.3	.0	7	84	0	28	3.5
MAR										
09...	1020	888	229	7.4	7.0	12	96	0	32	4.0
APR										
14...	1010	1070	236	7.7	15.5	35	95	0	31	4.3
MAY										
26...	1130	1310	234	7.7	22.0	23	100	0	33	4.4
JUN										
14...	1030	717	247	7.9	20.5	17	120	0	39	4.6
JUL										
08...	1100	959	232	8.2	24.0	18	100	0	34	4.3
AUG										
16...	1530	573	232	7.9	25.5	8	110	0	38	4.3
SEP										
09...	1050	576	237	8.0	17.5	6	110	0	35	4.3

DATE	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED FLUORIDE (F) (MG/L) (00950)
NOV									
03...	9.5	.4	6.0	149	0	122	7.0	1.3	.3
17...	8.7	.4	5.3	125	0	103	6.1	1.3	.3
DEC									
08...	9.7	.4	6.2	136	0	112	8.7	1.6	.3
FEB									
09...	8.0	.4	5.4	121	0	99	5.6	1.1	.3
MAR									
09...	9.1	.4	6.5	135	0	111	7.1	1.5	.3
APR									
14...	11	.5	7.2	140	0	110	12	2.0	.4
MAY									
26...	9.7	.4	7.2	140	0	110	8.5	1.7	.4
JUN									
14...	9.9	.4	7.3	150	0	120	10	1.5	.4
JUL									
08...	9.5	.4	6.5	140	0	110	9.2	1.4	.4
AUG									
16...	9.2	.4	6.8	150	0	120	6.2	1.4	.4
SEP									
09...	9.0	.4	6.5	150	0	120	7.5	1.9	.4

06462000 NIOBRARA RIVER NEAR NORDEN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)
NOV									
03...	51	192	.26	320	1.1	.08	30	20	40
17...	68	167	.23	327	.98	.08	20	30	0
DEC									
08...	57	189	.26	266	.68	.10	30	20	20
FEB									
09...	51	165	.22	417	.55	.12	20	20	10
MAR									
09...	47	176	.24	422	.51	.10	30	20	10
APR									
14...	45	183	.25	726	.26	.10	50	40	0
MAY									
26...	47	182	.25	666	.18	.12	40	40	0
JUN									
14...	--	--	--	296	.36	.08	40	80	0
JUL									
08...	59	189	.26	295	.15	.07	40	30	0
AUG									
16...	53	194	.26	300	.11	.06	30	50	0
SEP									
09...	57	197	.27	306	.14	.07	30	30	0

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244	234	225	258	211	246	228	300	212	218	268	267
2	232	240	253	261	220	227	228	275	258	229	245	256
3	232	242	271	248	224	228	226	278	268	240	243	246
4	232	239	262	190	202	239	245	268	258	235	242	248
5	232	244	256	187	200	243	243	268	275	243	268	250
6	233	238	260	256	213	236	235	278	272	232	238	237
7	234	235	320	240	210	208	248	250	254	256	252	248
8	234	238	256	177	215	237	243	307	273	240	235	237
9	234	239	251	208	212	197	238	293	257	243	238	248
10	234	241	248	240	214	206	223	279	265	234	238	244
11	236	232	245	248	208	227	246	302	257	228	244	242
12	237	253	252	245	208	219	195	293	260	238	237	247
13	237	248	244	243	205	223	250	285	256	228	245	243
14	237	241	235	238	202	204	238	277	260	238	247	246
15	240	257	238	234	207	226	227	257	250	234	252	241
16	242	256	232	233	213	208	235	258	243	224	248	243
17	253	240	230	232	204	234	250	272	263	214	248	237
18	238	233	226	233	200	243	240	277	238	220	257	240
19	243	246	227	199	213	245	250	273	255	209	238	238
20	251	244	303	225	193	243	238	276	245	237	236	245
21	236	247	248	238	191	243	258	276	235	229	238	245
22	236	247	242	223	215	248	258	258	254	233	258	246
23	242	256	248	185	209	224	233	263	247	233	245	245
24	238	240	208	218	202	244	252	259	247	235	245	250
25	238	242	205	213	198	244	247	258	245	227	248	245
26	246	232	210	247	198	245	246	255	244	237	242	247
27	248	260	235	208	197	218	236	258	243	237	245	241
28	241	280	208	198	218	246	250	282	248	220	252	237
29	239	320	230	199	---	227	232	257	248	227	255	246
30	250	252	241	197	---	224	247	135	253	239	248	244
31	193	---	285	218	---	228	---	255	---	223	245	---

06462000 NIOBRARA RIVER NEAR NORDEN, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.5	6.0	1.5	2.0	2.0	3.0	3.0	19.0	18.0	17.0	18.0	17.0
2	13.0	7.0	2.0	3.0	1.0	3.0	4.0	16.0	18.0	19.0	18.5	17.0
3	14.0	7.0	3.0	1.5	1.0	2.0	5.0	16.0	20.0	21.0	19.0	17.0
4	12.5	1.0	1.0	0.0	2.0	2.0	4.0	17.0	24.0	25.0	20.0	20.0
5	9.0	4.0	1.0	0.0	1.0	2.0	6.0	16.0	24.0	24.0	21.0	17.0
6	8.0	4.0	0.0	3.0	1.0	2.0	7.0	14.0	22.0	23.0	20.5	19.0
7	7.5	1.0	2.0	1.0	1.0	3.0	6.0	14.0	21.0	22.0	20.0	20.0
8	10.0	6.0	5.0	1.0	1.0	5.0	9.5	16.0	21.0	21.0	22.0	20.0
9	8.0	6.0	2.0	0.5	2.0	4.0	13.0	17.0	19.0	20.0	22.0	14.0
10	10.0	1.5	3.0	0.5	1.0	5.0	13.0	18.0	22.5	18.0	19.0	14.0
11	12.0	1.0	3.0	1.0	1.0	5.0	14.0	18.0	21.0	20.0	14.0	16.0
12	12.5	1.0	1.0	1.0	1.0	5.5	11.0	19.0	18.0	20.0	17.0	17.0
13	13.5	1.0	1.0	0.5	2.0	5.0	14.0	18.5	20.0	22.0	17.5	17.0
14	12.5	1.0	2.0	0.0	1.0	4.5	15.0	18.0	21.0	22.0	18.0	14.5
15	7.0	1.0	1.0	0.0	0.5	5.0	15.0	17.0	22.0	21.0	20.5	14.0
16	7.0	2.0	1.0	0.0	2.0	5.5	16.0	17.0	22.0	22.0	18.0	16.0
17	5.0	3.0	1.5	0.0	1.0	6.0	19.0	16.0	20.0	23.0	19.0	18.0
18	4.5	4.0	1.0	0.0	1.0	7.0	12.0	16.0	18.0	24.0	19.0	16.0
19	3.5	4.0	3.0	1.0	3.0	6.0	12.0	17.0	18.0	23.0	20.0	13.0
20	5.0	3.0	0.0	1.0	2.0	4.0	10.0	16.0	19.0	23.0	20.0	13.0
21	3.0	2.0	1.0	1.0	2.0	1.0	10.0	15.0	19.0	19.0	19.0	14.0
22	3.0	0.5	1.0	1.0	2.0	4.5	13.0	13.0	20.0	21.0	20.0	15.0
23	4.5	5.0	0.5	1.0	1.5	10.0	14.0	17.0	22.0	22.0	19.0	13.0
24	5.0	1.0	0.5	1.0	2.0	8.0	14.0	19.0	22.0	24.0	20.0	11.0
25	2.5	3.0	1.0	1.0	2.5	9.0	12.0	18.0	22.0	21.0	20.0	11.0
26	3.0	4.0	2.0	1.0	2.0	10.0	14.0	18.0	22.5	20.0	22.0	12.0
27	3.0	3.5	2.0	1.0	2.0	7.0	16.0	20.0	23.0	21.0	23.0	12.0
28	3.0	2.5	2.0	1.0	2.0	5.0	16.0	19.0	22.0	17.0	20.0	14.0
29	4.0	0.0	0.5	1.0	---	3.0	16.0	18.0	20.0	17.0	17.0	15.0
30	4.0	1.0	0.5	0.0	---	4.0	18.5	20.0	18.0	17.0	19.0	14.0
31	5.0	---	0.5	2.0	---	1.0	---	17.0	---	17.0	20.0	---

06462500 PLUM CREEK AT MEADVILLE, NE

LOCATION.--Lat 42°45'05", long 99°52'05", in NE1/4NW1/4 sec.14, T.32 N., R.22 W., Brown County, Hydrologic Unit 10150004, on left bank 0.4 mi (0.6 km) upstream from county road bridge, 1 mi (2 km) upstream from mouth, 1 mi (2 km) southwest of Meadville, and 17 mi (27 km) north of Ainsworth.

DRAINAGE AREA.--600 mi² (1,550 km²), approximately, of which about 340 mi² (880 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1947 to September 1975, October 1976 to current year. Prior to October 1962, published as "near Meadville."

REVISED RECORDS.--WSP 1729: 1953. WSP 1917: 1953.

GAGE.--Water-stage recorder. Altitude of gage is 2,035 ft (620.3 m), from topographic map. Prior to Nov. 25, 1962, at site 6.5 mi (10.5 km) upstream at different datum. Nov. 25, 1962, to Nov. 18, 1966, at present site at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records fair except those for periods of no gage-height record, Oct. 1 to Dec. 8, Feb. 4-8, 10-16, which are poor.

AVERAGE DISCHARGE.--28 years (1948-75,1977), 108 ft³/s (3.059 m³/s), 78,250 acre-ft/yr (96.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,070 ft³/s (58.6 m³/s) Sept. 18, 1967, gage height, 4.98 ft (1.518 m); maximum gage height observed, 7.54 ft (2.298 m) Dec. 6, 1964, backwater from ice, present datum; minimum daily discharge, 15 ft³/s (0.42 m³/s) Feb. 19, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 3	1500	Ice jam		*3.46	1.055
Apr. 4	0800	372	10.5	1.67	0.509
Apr. 22	1600	630	17.8	2.37	0.722
May 9	1900	*758	21.5	2.53	0.771
May 22	0700	510	14.4	2.09	0.637
July 9	1930	445	12.6	2.13	0.649

Minimum discharge, 74 ft³/s (2.10 m³/s) Mar. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	96	94	94	104	74	127	126	229	106	105	91
2	96	96	90	96	102	80	178	124	223	116	113	91
3	96	96	94	94	106	92	278	125	205	131	107	93
4	94	96	96	98	104	96	347	147	187	128	111	109
5	98	96	100	94	96	88	296	126	175	108	109	104
6	100	94	94	92	98	90	231	109	160	107	112	99
7	104	98	98	96	102	90	205	151	140	111	120	99
8	100	96	100	94	106	91	178	190	132	100	118	95
9	98	94	98	90	104	85	166	381	119	118	133	85
10	96	92	96	82	106	95	135	465	117	173	124	86
11	96	98	100	84	106	125	167	505	117	208	118	90
12	94	96	98	86	96	163	158	365	154	149	114	96
13	94	86	98	100	104	131	140	266	223	134	107	104
14	94	82	96	104	96	119	129	211	180	119	105	97
15	92	92	95	102	84	105	131	197	157	117	103	101
16	90	100	95	96	92	96	134	183	133	120	102	102
17	94	90	95	100	90	119	138	166	158	122	110	106
18	98	90	93	116	90	132	142	160	171	113	115	100
19	98	88	91	114	86	121	149	166	143	120	118	98
20	96	88	84	110	92	125	199	148	129	116	115	96
21	94	90	86	108	98	132	359	162	138	116	115	112
22	96	90	88	106	106	135	558	344	144	115	106	128
23	96	90	86	106	114	141	400	387	137	119	113	92
24	94	92	90	104	92	182	302	405	144	120	115	89
25	94	94	92	104	80	206	245	376	128	195	119	84
26	94	96	90	102	80	219	208	321	120	173	122	82
27	94	90	93	98	76	219	181	305	117	143	114	85
28	96	100	99	92	80	197	166	270	112	115	108	84
29	94	98	94	94	---	203	143	249	116	113	99	91
30	94	96	90	98	---	173	119	239	110	114	99	107
31	94	---	90	100	---	133	---	256	---	106	99	---
TOTAL	2964	2800	2903	3054	2690	4057	6309	7625	4518	3945	3468	2896
MEAN	95.6	93.3	93.6	98.5	96.1	131	210	246	151	127	112	96.5
MAX	104	100	100	116	114	219	558	505	229	208	133	128
MIN	90	82	84	82	76	74	119	109	110	100	99	82
AC-FT	5880	5550	5760	6060	5340	8050	12510	15120	8960	7820	6880	5740

WTR YR 1977 TOTAL 47229 MEAN 129 MAX 558 MIN 74 AC-FT 93680

NOTE.--Period October 1 to December 8 estimated.

06462500 PLUM CREEK AT MEADVILLE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1977 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)
DEC										
09...	1510	97	171	7.5	2.5	7	73	0	28	3.1
JAN										
17...	1455	107	183	7.1	.0	5	74	0	26	3.5
FEB										
09...	1355	111	167	7.3	.5	50	72	0	28	2.9
MAR										
23...	0905	138	181	7.5	6.0	38	78	0	26	3.1
APR										
12...	1315	[illegible]	173	7.5	15.0	45	73	0	24	3.1
MAY										
04...	1150	157	215	7.7	19.0	24	91	0	30	3.9
JUN										
16...	1000	135	208	7.5	22.5	45	91	0	29	4.4
JUL										
28...	1120	112	179	7.5	24.0	43	83	0	27	3.9
AUG										
16...	1330	105	187	7.3	23.0	8	79	0	26	3.4
SEP										
28...	1055	97	181	7.3	16.0	8	87	0	29	3.6

DATE	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)
DEC									
09...	6.5	.3	5.3	100	0	82	6.5	1.3	.3
JAN									
17...	6.8	.3	5.0	101	0	83	4.4	.9	.3
FEB									
09...	6.2	.3	4.8	110	0	90	3.5	1.0	.3
MAR									
23...	6.3	.3	5.8	102	0	88	5.8	1.5	.3
APR									
12...	6.7	.3	5.8	100	0	82	11	1.6	.4
MAY									
04...	9.2	.4	7.2	130	0	110	8.6	2.1	.6
JUN									
16...	8.4	.4	6.9	120	0	98	4.0	1.3	.4
JUL									
28...	8.9	.4	6.8	120	0	98	4.4	1.4	.3
AUG									
16...	6.9	.3	5.5	110	0	90	5.9	1.1	.4
SEP									
28...	7.0	.3	5.7	110	0	90	4.8	1.3	.2

DATE	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)
DEC									
09...	58	154	.21	40.3	.88	.10	20	20	0
JAN									
17...	58	159	.22	45.9	.87	.13	20	70	0
FEB									
09...	52	152	.21	45.6	.74	.13	20	30	20
MAR									
23...	45	147	.20	54.8	.65	.14	40	40	0
APR									
12...	42	146	.20	62.7	.43	.12	40	50	10
MAY									
04...	50	179	.24	75.9	.65	.14	40	30	0
JUN									
16...	52	169	.23	61.6	.69	.19	40	80	10
JUL									
28...	47	162	.22	49.0	.60	.14	40	80	10
AUG									
16...	56	162	.22	45.9	.50	.13	30	40	0
SEP									
28...	59	175	.24	45.8	2.2	.11	20	20	0

06463500 LONG PINE CREEK NEAR RIVERVIEW, NE

LOCATION.--Lat 42°41'20", long 99°41'20", in N1/2 sec.5, T.31 N., R.20 W., Brown County, Hydrologic Unit 10150004, on right bank 7 ft (2 m) downstream from county road bridge, 1 mi (2 km) downstream from Bone Creek, and 5.5 mi (8.8 km) southwest of Riverview.

DRAINAGE AREA.--390 mi² (1,010 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1948 to January 1954, September 1954 to current year.

REVISED RECORDS.--WSP 1729: 1952(M).

GAGE.--Water-stage recorder. Datum of gage is 1,983.34 ft (604.522 m) above mean sea level, (levels by Bureau of Reclamation). Prior to Dec. 7, 1962, at site 100 ft (30 m) upstream at present datum.

REMARKS.--Records good except those above 250 ft³/s (7.08 m³/s), which are poor.

AVERAGE DISCHARGE.--28 years (1948-53, 1954-77), 135 ft³/s (3.823 m³/s), 97,810 acre-ft/yr (0.121 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,650 ft³/s (273 m³/s) July 1, 1962, gage height, 15.68 ft (4.779 m), backwater from fallen bridge, from rating curve extended above 3,600 ft³/s (102 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 44 ft³/s (1.25 m³/s) Jan. 10, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s (11.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 11	2000	1260	35.7	6.04	1.841
Mar. 17	0930	490	13.9	4.22	1.286
Apr. 21	0500	547	15.5	4.53	1.381
May 9	1000	1700	48.1	6.88	2.097
May 21	2300	2280	64.6	6.68	2.036
July 9	2230	*6100	173	10.18	3.103

Minimum daily, 104 ft³/s (2.95 m³/s) Jan. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	126	123	123	115	126	201	151	227	180	172	159
2	132	124	121	126	121	132	203	150	215	182	167	158
3	125.	123	124	123	118	131	173	150	205	151	166	159
4	121	123	120	126	117	127	160	148	209	188	165	169
5	130	126	126	126	115	131	151	143	207	182	168	160
6	131	124	121	123	115	137	148	183	205	180	172	158
7	136	123	124	131	115	137	146	201	191	182	169	158
8	138	124	126	120	118	143	146	315	194	182	173	152
9	131	123	124	114	118	151	143	478	198	597	188	148
10	127	121	120	112	118	176	142	293	176	865	180	148
11	126	123	123	114	120	634	140	260	178	221	183	153
12	124	123	123	117	121	413	142	221	205	173	166	170
13	124	113	123	126	123	205	139	207	205	150	162	166
14	126	110	120	127	124	213	137	203	189	147	169	161
15	124	121	124	123	120	260	142	213	185	143	167	158
16	123	123	126	112	123	315	148	200	172	173	159	156
17	124	121	126	114	126	425	140	205	215	183	164	166
18	129	123	127	120	126	346	145	221	187	178	163	157
19	129	121	124	132	126	237	153	229	178	171	162	150
20	127	121	118	129	126	191	256	217	173	159	161	150
21	127	123	120	126	127	169	442	440	191	150	160	193
22	127	123	126	126	131	171	289	1080	182	158	167	178
23	127	123	120	124	146	182	185	481	196	167	173	158
24	126	124	126	126	126	187	166	300	187	183	168	142
25	126	124	126	123	129	180	159	250	163	201	171	134
26	126	126	126	123	129	172	156	233	161	183	169	132
27	126	117	129	121	129	158	156	227	148	178	173	135
28	127	129	129	104	---	166	151	223	151	176	168	134
29	128	127	124	106	---	203	155	219	150	172	167	133
30	124	126	120	110	---	196	156	219	139	165	166	167
31	124	---	114	112	---	165	---	229	---	167	164	---
TOTAL	3937	3678	3823	3739	3451	6579	5130	8245	5582	6207	5222	4662
MEAN	127	123	123	121	123	212	171	266	186	200	168	155
MAX	136	129	129	132	146	634	442	1080	227	865	188	193
MIN	121	110	114	104	115	126	137	143	139	140	159	132
AC-FT	7810	7300	7580	7420	6850	13050	10180	16350	11070	12310	10360	9250

CAL YR 1976 TOTAL 50037 MEAN 137 MAX 226 MIN 107 AC-FT 99250
WTR YR 1977 TOTAL 60255 MEAN 165 MAX 1080 MIN 104 AC-FT 119500

06463500 LONG PINE CREEK NEAR RIVERVIEW, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1977 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)
DEC										
08...	1320	138	177	7.5	3.5	3	69	0	22	3.3
JAN										
17...	1045	126	162	7.1	1.5	4	70	0	22	3.6
FEB										
07...	1520	116	171	7.4	6.0	7	67	0	22	2.9
MAR										
23...	1130	176	190	7.6	7.5	35	77	0	25	3.6
APR										
14...	1410	142	180	7.6	17.5	12	71	0	23	3.2
MAY										
04...	1400	149	179	7.7	21.0	7	73	0	24	3.1
JUN										
16...	1250	165	181	7.5	21.5	25	79	0	25	3.9
JUL										
28...	0920	179	188	7.2	19.5	27	79	0	26	3.5
AUG										
16...	1010	158	182	7.0	16.0	12	78	0	25	3.7
SEP										
28...	1330	135	177	7.4	17.0	11	72	0	23	3.5

DATE	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED FLUORIDE (F) (MG/L) (00950)
DEC									
08...	7.3	.4	5.2	90	0	74	5.9	2.3	.3
JAN									
17...	6.7	.4	4.6	86	0	71	4.2	1.6	.3
FEB									
07...	6.5	.3	4.6	95	0	78	7.7	1.8	.3
MAR									
23...	8.5	.4	7.5	101	0	83	6.8	4.0	.2
APR									
14...	7.2	.4	5.3	96	0	79	6.1	2.3	.3
MAY									
04...	7.4	.4	5.6	98	0	80	5.8	2.4	.3
JUN									
16...	7.6	.4	5.9	98	0	80	4.8	2.1	.3
JUL									
28...	7.5	.4	6.4	100	0	82	7.2	3.4	.3
AUG									
16...	7.2	.4	5.7	100	0	82	4.8	1.9	.3
SEP									
28...	7.1	.4	5.8	97	0	80	4.5	2.6	.2

DATE	DISSOLVED SILICA (SIO2) (MG/L) (00955)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	DISSOLVED SOLIDS (TONS PER DAY) (70302)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)	DISSOLVED BORON (B) (UG/L) (01020)	DISSOLVED IRON (FE) (UG/L) (01046)	DISSOLVED MANGANESE (MN) (UG/L) (01056)
DEC									
08...	56	152	.21	56.6	1.3	.18	20	20	20
JAN									
17...	56	148	.20	50.3	1.4	.18	20	30	10
FEB									
07...	56	155	.21	48.5	1.4	.17	10	10	0
MAR									
23...	47	158	.21	75.1	1.2	.33	40	40	10
APR									
14...	51	151	.21	57.9	1.1	.22	20	50	0
MAY									
04...	50	152	.21	61.1	1.2	.19	20	30	0
JUN									
16...	52	155	.21	69.1	1.1	.26	30	60	0
JUL									
28...	50	159	.22	76.8	1.2	.27	40	30	4
AUG									
16...	53	155	.21	66.1	1.0	.22	20	30	0
SEP									
28...	57	154	.21	56.1	.54	.21	20	20	0

06464500 KEYA PAHA RIVER AT WEWELA, SD

LOCATION.--Lat 43°01'42", long 99°46'45", in SE1/4 sec.24, T.95 N., R.76 W., Tripp County, Hydrologic Unit 10150006, on left bank 13 ft (4 m) downstream from bridge on U.S. Highway 183, 1.0 mi (1.6 km) north of Wewela, 4.5 mi (7.2 km) upstream from Holt Creek, and 11.5 mi (18.5 km) downstream from Lost Creek.

DRAINAGE AREA.--1,070 mi² (2,770 km²), approximately.

PERIOD OF RECORD.--November 1937 to September 1940, October 1947 to current year. Monthly discharge only for October 1947, published in WSP 1309.

GAGE.--Water-stage recorder. Datum of gage is 2,049.78 ft (624.773 m) above mean sea level. Prior to June 21, 1957, nonrecording gage at site 13 ft (4.0 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--32 years (1938-40, 1947-77), 67.1 ft³/s (1.900 m³/s), 48,610 acre-ft/yr (59.9 hm³/yr); median of yearly mean discharges, 57 ft³/s (1.614 m³/s), 41,300 acre-ft/yr (50.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,430 ft³/s (154 m³/s) Mar. 31, 1952, gage height, 13.08 ft (3.987 m); maximum gage height, 13.5 ft (4.11 m) Mar. 25, 1950, from floodmark, backwater from ice; no flow Jan. 10 to Feb. 15, 1949, Aug. 19 to Sept. 14, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.08 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 30	0100	531	15.0	3.76	1.146	May 24	0300	432	12.2	3.44	1.049
Apr. 8	2045	441	12.5	3.47	1.058	June 12	2100	*1380	39.1	*5.65	1.722
Apr. 20	2030	727	20.6	4.28	1.305	June 17	1000	501	14.2	3.66	1.116
May 10	0330	531	15.0	3.76	1.146						

Minimum daily discharge, 2.0 ft³/s (0.057 m³/s) Jan. 28,29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	14	7.0	7.0	5.0	9.5	258	138	135	49	32	31
2	7.7	14	7.0	6.0	7.0	9.5	310	128	120	46	32	31
3	5.8	14	7.0	5.0	8.0	10	347	120	107	48	29	31
4	4.7	14	8.0	5.0	7.0	15	337	115	99	48	29	30
5	4.2	15	8.0	5.0	6.0	20	312	111	92	45	28	29
6	4.4	15	8.0	5.0	6.0	25	290	104	85	67	28	28
7	5.2	15	8.5	5.0	6.5	30	323	141	79	50	28	27
8	6.2	14	8.5	5.5	7.0	50	380	197	72	49	30	26
9	5.4	15	8.5	5.0	9.0	100	404	349	65	48	52	25
10	5.6	15	9.0	4.0	12	100	369	480	61	50	50	24
11	5.6	11	9.0	4.0	15	95	369	461	62	52	69	24
12	5.5	9.0	9.0	4.0	17	95	347	375	323	50	65	25
13	5.6	9.0	9.5	4.0	17	90	326	258	479	48	62	26
14	5.2	10	10	4.5	16	95	306	210	188	45	53	25
15	4.8	12	11	4.5	16	100	288	195	121	42	43	24
16	4.8	12	12	4.0	14	120	277	167	187	42	40	24
17	5.6	15	13	3.0	14	122	255	144	350	40	37	24
18	8.3	16	12	3.0	16	217	305	129	221	38	36	25
19	10	15	10	3.0	16	181	311	124	146	35	35	25
20	11	13	9.0	3.5	16	129	585	114	120	36	32	26
21	11	10	8.0	4.0	18	94	605	137	109	43	30	28
22	12	11	8.0	3.0	19	96	418	247	103	42	30	30
23	12	12	9.0	3.0	18	103	313	344	97	41	32	29
24	12	13	9.0	3.0	18	162	250	383	86	46	30	28
25	12	12	9.0	2.5	17	360	208	275	76	65	31	28
26	13	10	9.0	2.2	14	489	183	220	68	49	31	27
27	13	8.0	9.0	2.2	10	377	166	204	62	45	34	27
28	13	6.0	10	2.0	9.5	312	152	193	58	48	37	28
29	14	5.0	9.0	2.0	---	444	144	179	55	44	43	27
30	14	6.0	8.5	3.0	---	491	145	166	51	38	41	39
31	14	---	8.0	4.0	---	239	---	148	---	33	35	---
TOTAL	263.3	360.0	280.5	120.9	354.0	4740.0	9283	6556	3877	1422	1184	821
MEAN	8.49	12.0	9.05	3.90	12.6	153	309	211	129	45.9	38.2	27.4
MAX	14	16	13	7.0	19	491	605	480	479	67	69	39
MIN	4.2	5.0	7.0	2.0	5.0	9.5	144	104	51	33	28	24
AC-FT	522	714	556	240	702	9400	18410	13000	7690	2820	2350	1630

CAL YR 1976 TOTAL 6787.28 MEAN 18.5 MAX 85 MIN .00 AC-FT 13460
WTR YR 1977 TOTAL 29261.70 MEAN 80.2 MAX 605 MIN 2.0 AC-FT 58040

06464900 KEYA PAHA RIVER NEAR NAPER, NE

LOCATION.--Lat 42°55'00", long 99°05'50", in SE1/4SE1/4 sec.17, T.34 N., R.15 W., Boyd County, Hydrologic Unit 10150006, on left bank 70 ft (21 m) upstream from highway bridge, 3.3 mi (5.3 km) south of Naper, and 8.6 mi (13.8 km) upstream from mouth. A new bridge was constructed 70 ft (21 m) downstream from gage and put into use in July 1977, gage not moved.

DRAINAGE AREA.--1,630 mi² (4,220 km²), approximately.

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WSP 1709: 1959(M).

GAGE.--Water-stage recorder. Altitude of gage is 1,680 ft (512 m), from topographic map. Prior to May 2, 1958, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are poor. Minor diversions for irrigation above station.

AVERAGE DISCHARGE.--20 years, 128 ft³/s (3.625 m³/s), 92,740 acre-ft/yr (0.114 km³/yr); median of yearly mean discharges, 120 ft³/s (3.398 m³/s), 86,900 acre-ft/yr (0.107 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,280 ft³/s (263 m³/s) July 1, 1962, gage height, 10.91 ft (3.325 m); maximum gage height, 13.34 ft (4.066 m) Mar. 23, 1960, backwater from ice; no flow July 22-30, Aug. 10, 11, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft³/s (25.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 12	0330	Backwater from ice		*7.94	2.420	May 23	0130	1020	28.9	6.41	1.954
Mar. 30	0230	958	27.1	6.39	1.948	June 13	1500	1370	38.8	6.81	2.076
Apr. 21	0930	*2000	56.6	7.12	2.170	June 18	1230	1050	29.7	6.56	1.999

Minimum daily discharge, 3.6 ft³/s (0.10 m³/s) Jan. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	25	14	9.2	8.0	24	240	221	174	51	19	64
2	12	25	16	10	9.0	25	356	206	138	60	17	57
3	11	23	16	10	10	30	372	200	117	62	16	54
4	11	21	17	11	11	80	305	179	90	57	14	48
5	12	21	17	10	8.0	60	277	164	75	50	12	41
6	13	23	16	9.0	8.0	56	216	155	60	42	14	35
7	12	21	16	9.6	9.0	52	195	138	49	51	11	38
8	12	21	17	8.0	12	56	284	146	41	87	45	36
9	9.7	21	18	9.0	15	60	464	319	36	57	302	31
10	9.9	19	17	8.0	20	64	431	528	28	100	140	27
11	11	15	19	8.0	23	130	496	591	26	380	110	26
12	12	12	20	8.0	27	250	403	560	53	234	90	38
13	11	12	23	8.0	30	350	298	537	485	103	107	36
14	9.2	13	23	9.0	30	420	257	447	364	73	90	31
15	8.3	14	24	7.0	28	460	301	340	348	65	78	36
16	7.6	16	26	4.5	30	491	509	252	286	60	65	32
17	8.7	18	28	4.5	31	631	490	222	312	49	53	97
18	14	20	30	5.0	33	665	541	195	600	37	53	47
19	17	20	29	6.0	33	504	488	174	492	24	47	37
20	18	20	19	7.0	33	354	800	125	319	19	39	34
21	17	15	26	7.4	36	222	1780	216	240	20	30	59
22	15	12	25	5.0	39	175	936	591	190	18	24	75
23	18	16	23	5.0	39	192	532	686	190	19	23	70
24	20	22	24	5.0	37	238	396	650	146	23	24	67
25	19	18	25	4.5	37	330	414	667	117	34	30	60
26	21	14	24	4.5	34	448	316	492	100	45	33	53
27	22	11	26	4.2	27	488	278	396	90	65	88	51
28	24	9.0	19	4.0	25	362	240	356	83	47	61	51
29	23	10	13	3.6	---	600	221	319	73	32	51	53
30	23	12	11	6.0	---	899	231	264	60	37	53	107
31	23	---	11	7.0	---	555	---	210	---	28	69	---
TOTAL	455.4	519.0	632	217.0	682.0	9271	13067	10546	5382	2029	1808	1483
MEAN	14.7	17.3	20.4	7.00	24.4	299	436	340	179	65.5	58.3	49.4
MAX	24	25	30	11	39	899	1780	686	600	380	302	107
MIN	7.6	9.0	11	3.6	8.0	24	195	125	26	18	11	26
AC-FT	903	1030	1250	430	1350	18390	25920	20920	10680	4020	3590	2940

CAL YR 1976 TOTAL 14831.42 MEAN 40.5 MAX 412 MIN .00 AC-FT 29420
WTR YR 1977 TOTAL 46051.40 MEAN 126 MAX 1780 MIN 3.6 AC-FT 91340

06465000 NIOBRARA RIVER NEAR SPENCER, NE

LOCATION.--Lat 42°48'33", long 98°30'19", in SE1/4NW1/4 sec.30, T.33 N., R.11 W., Boyd County, Hydrologic Unit 10150007, at Spencer powerplant dam 5 mi (8 km) southeast of Spencer.

DRAINAGE AREA.--12,100 mi² (31,300 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to December 1908 (gage heights only); August 1913 to September 1914; October to December 1914, April to September 1915 (gage heights only); August 1927 to September 1936, June 1940 to current year. Published as "near Lynch" 1913-15. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Water-stage recorder and hourly log of powerplant operation. Datum of gage is 1,473.67 ft (449.175 m) above mean sea level. Elevation of taintor gate sill, 1,491.12 ft (454.493 m) above mean sea level. Prior to December 1908, nonrecording gage on former highway bridge 275 ft (83.8 m) downstream and Aug. 1, 1913, to Sept. 30, 1915, nonrecording gage at highway bridge 10 mi (16 km) downstream at different datums. Aug. 1, 1927, to Sept. 30, 1944, discharge computed as flow through powerhouse and over dam. Oct. 1, 1944, to Nov. 10, 1954, water-stage recorder at site 225 ft (68.6 m) downstream at datum 4.98 ft (1.518 m) higher, and Nov. 11, 1954, to Sept. 30, 1957, at site 0.3 mi (0.5 km) downstream at datum 9.78 ft (2.981 m) lower. Oct. 1, 1957, to Oct. 21, 1958, discharge computed as flow through powerhouse and over dam. Oct. 28, 1958, to Aug. 13, 1963, water-stage recorder at site 225 ft (68.6 m) downstream at present datum. Aug. 14, 1963, to Sept. 30, 1976, discharge computed as flow through powerhouse and over dam.

REMARKS.--Records good. Natural flow of stream affected by irrigation and power developments. Daily discharge determined from flow through turbines and taintor gates, computed from relation between discharge, head, and gate openings. Periodic temperature and conductance measurements are published in tables for water quality at miscellaneous sites.

COOPERATION.--Powerplant log furnished by Nebraska Public Power District.

AVERAGE DISCHARGE.--47 years (1913-14, 1927-36, 1940-77), 1,395 ft³/s (39.51 m³/s), 1,011,000 acre-ft/yr (1.25 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,400 ft³/s (776 m³/s) Mar. 12, 1955, gage height, 12.16 ft (3.706 m), site and datum then in use; minimum daily, 5 ft³/s (0.14 m³/s) Nov. 14, Dec. 18, 19, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 6,120 ft³/s (173 m³/s) Mar. 3; minimum daily, 149 ft³/s (4.22 m³/s) Nov. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	846	1010	192	714	1020	1730	2450	1890	1910	1010	761	1030
2	849	990	241	706	1040	1640	2330	1780	1760	1000	785	1040
3	842	929	359	656	1120	1430	2570	1740	1570	963	813	987
4	874	1000	349	678	1180	1150	2740	1570	1440	975	858	1150
5	885	1020	521	799	1240	1040	2870	1640	1320	822	759	1420
6	863	1010	807	904	1250	1160	2790	1520	1270	784	790	1040
7	889	1020	1000	992	1200	1410	2580	1570	1280	1120	762	960
8	935	1020	1010	976	1250	1800	2380	2220	1130	1010	1270	955
9	943	1010	924	952	1340	2120	2310	2390	1150	937	1760	989
10	945	991	964	834	1440	2530	2330	2980	1130	2600	1500	913
11	1060	914	998	852	1490	3270	2280	3120	1090	2070	1740	851
12	1050	355	1050	775	1550	5330	2540	2710	1470	1520	1300	903
13	869	567	1100	610	1620	6120	2620	2650	2150	1190	1170	1230
14	882	717	1190	618	1700	4000	2780	2250	2230	1010	1090	999
15	884	883	1180	864	1710	3980	2490	2050	1540	972	1100	968
16	941	889	1230	885	1670	2870	2500	1870	1490	814	1060	954
17	900	1260	1260	947	1740	2940	2390	1560	2450	782	1020	1370
18	1020	2030	1390	880	1840	2990	2430	1430	3060	758	999	1560
19	1080	1310	1440	902	1880	2520	2600	1630	2280	710	1100	1140
20	1020	1100	1280	893	1870	2200	3340	1800	1610	692	916	1020
21	1020	1050	1160	913	1860	1660	4090	2430	1880	804	909	1220
22	963	689	1040	865	2000	2600	3740	4140	1460	688	909	1910
23	952	936	1020	913	2030	1960	3330	3750	1020	862	980	1340
24	1000	1050	1060	962	1850	2110	2500	2670	1420	919	971	1220
25	998	1440	1110	1040	1790	2300	3100	2490	1430	1110	1030	1080
26	981	1090	1160	1100	1720	2420	3440	2240	1270	1720	925	1040
27	1050	182	1250	1180	1950	2570	1970	2500	1180	1100	1140	1030
28	1070	186	1330	1170	1880	2610	1870	2380	1230	1000	1240	1050
29	1030	170	1310	1110	---	3790	1890	2230	1170	869	1100	1090
30	1020	149	1140	1060	---	3570	1970	2360	1070	825	1000	1430
31	1030	---	899	1050	---	3410	---	2050	---	781	1000	---
TOTAL	29691	26967	30964	28202	44230	81430	79220	69610	46380	32417	32757	33089
MEAN	958	899	999	910	1580	2627	2641	2245	1546	1046	1057	1130
MAX	1080	2030	1440	1180	2030	6120	4090	4140	3060	2600	1760	1910
MIN	842	149	192	650	1020	1040	1870	1430	1020	688	759	851
AC-FT	58890	53490	61420	55940	87730	161500	157100	138100	91990	64300	64970	67220

CAL YR 1976 TOTAL 399977 MEAN 1093 MAX 3050 MIN 149 AC-FT 793400
WTR YR 1977 TOTAL 535757 MEAN 1468 MAX 6120 MIN 149 AC-FT 1063000

06465000 NIOBRARA RIVER NEAR SPENCER, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976-1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE (DEG C) (00010)
OCT , 1976				
21...	1225	985	248	4.0
NOV				
11...	1245	978	248	.5
DEC				
23...	1140	1040	258	1.0
FEB , 1977				
24...	1240	1050	203	.5
MAR				
16...	1520	3240	269	2.0
APR , 1977				
06...	1315	2990	292	10.5
MAY				
19...	1035	1700	272	18.5
JUN				
09...	1040	1160	307	19.0
AUG				
10...	1130	1460	295	19.5

06465500 NIOBRARA RIVER NEAR VERDEL, NE
National stream-quality accounting network station

LOCATION.--Lat 42°44'25", long 98°12'45", near center of N1/2 sec.23, T.32 N., R.8 W., Knox County, Hydrologic Unit 10150007, on left bank 4 ft (1 m) downstream from Pishelville Bridge, 6 mi (10 km) south of Verdel, and 7 mi (11 km) upstream from Verdigre Creek.

DRAINAGE AREA.--12,600 mi² (32,600 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1938 to May 1940, June 1958 to current year.

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,308.12 ft (398.715 m) above mean sea level. Apr. 25, 1938, to June 16, 1939, nonrecording gage at same site and datum. June 17, 1939, to June 13, 1940, nonrecording gage 250 ft (76 m) downstream at present datum.

REMARKS.--Records poor. Natural flow of stream affected by irrigation and power developments.

AVERAGE DISCHARGE.--20 years, 1,521 ft³/s (43.07 m³/s), 1,102,000 acre-ft/yr (1.36 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,000 ft³/s (1,100 m³/s) Mar. 27, 1960, gage height, 10.10 ft (3.078 m); maximum gage height, 10.62 ft (3.237 m) Mar. 12, 1966, backwater from ice; minimum daily discharge, 104 ft³/s (2.95 m³/s) Nov. 20, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 6,400 ft³/s (181 m³/s) Mar. 13; maximum gage height, 7.50 ft (2.286 m) Mar. 11, backwater from ice; minimum daily discharge, 140 ft³/s (3.96 m³/s) Nov. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	920	1060	200	740	1080	1800	2600	2000	2000	1060	800	1080
2	900	1040	250	740	1100	1700	2450	1850	1850	1060	820	1100
3	880	980	380	680	1180	1500	2700	1850	1650	1020	860	1040
4	920	1060	370	720	1240	1200	2900	1650	1500	1020	900	1200
5	920	1080	540	840	1300	1100	3000	1700	1400	860	800	1500
6	900	1060	840	940	1300	1220	2900	1600	1350	820	820	1100
7	940	1080	1060	1040	1250	1500	2700	1650	1350	1180	800	1000
8	980	1080	1060	1020	1300	1900	2500	2350	1180	1060	1350	1000
9	1000	1060	980	1000	1400	2250	2450	2500	1200	980	1850	1040
10	1000	1040	1020	900	1500	2700	2450	3100	1180	2700	1600	960
11	1120	960	1040	900	1550	3800	2400	3300	1140	2150	1850	900
12	1100	370	1100	820	1650	5600	2700	2800	1550	1600	1350	940
13	920	600	1160	860	1700	6400	2800	2800	2250	1250	1220	1300
14	920	760	1250	860	1800	4200	2900	2350	2350	1060	1140	1040
15	920	920	1240	900	1800	4200	2600	2150	1600	1020	1160	1020
16	1000	940	1300	920	1750	3000	2600	1950	1550	860	1120	1000
17	940	1300	1300	1000	1850	3100	2500	1650	2600	820	1080	1450
18	1080	2150	1450	920	1950	3100	2600	1500	3200	800	1040	1650
19	1140	1400	1500	940	1950	2600	2700	1700	2400	740	1160	1200
20	1080	1160	1350	940	1950	2300	3500	1900	1700	720	960	1080
21	1080	1100	1220	960	1950	1750	4300	2600	1900	840	960	1300
22	1020	720	1100	900	2100	2700	3900	4300	1550	720	960	2000
23	1000	980	1080	960	2150	2050	3500	3900	1080	900	1020	1400
24	1060	1100	1120	1020	1950	2200	2600	2800	1500	960	1020	1300
25	1040	1500	1160	1080	1900	2400	3300	2600	1500	1160	1080	1140
26	1040	1140	1220	1160	1800	2500	3600	2350	1350	1800	980	1100
27	1100	160	1300	1240	2050	2700	2050	2600	1240	1160	1200	1080
28	1120	140	1400	1220	1950	3000	1950	2500	1300	1060	1300	1100
29	1080	160	1400	1160	---	4000	2000	2350	1220	920	1160	1140
30	1080	180	1200	1120	---	3700	2050	2500	1120	860	1060	1500
31	1080	---	940	1100	---	3600	---	2150	---	820	1060	---
TOTAL	31280	28280	32530	29600	46450	85370	83200	73000	48760	33980	34480	35660
MEAN	1009	943	1049	955	1659	2754	2773	2355	1625	1096	1112	1189
MAX	1140	2150	1500	1240	2150	6400	4300	4300	3200	2700	1850	2000
MIN	880	140	200	680	1080	1100	1950	1500	1080	720	800	900
AC-FT	62040	56090	64520	58710	92130	169300	165000	144800	96720	67400	68390	70730

CAL YR 1976 TOTAL 447171 MEAN 1222 MAX 2800 MIN 140 AC-FT 887000
WTR YR 1977 TOTAL 562590 MEAN 1541 MAX 6400 MIN 140 AC-FT 1116000

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-65, 1967 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1975 to current year.
WATER TEMPERATURES: June 1958 to September 1965, October 1966 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1971 to current year.

INSTRUMENTATION.--Temperature recorder since June 14, 1958.

REMARKS.--Prior to July 1, 1971, sediment records were obtained by U.S. Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 470 micromhos Dec. 22, 1976; minimum daily, 110 micromhos Nov. 22, 1976.
WATER TEMPERATURES: Maximum, 38.0°C July 22, 1964, July 20, 1974; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 12,000 mg/L June 8, 1975; minimum daily, 56 mg/L Dec. 27, 1972.
SEDIMENT LOADS: Maximum daily, 123,000 tons (112,000 tonnes) Mar. 13, 1977; minimum daily, 60 tons (55 tonnes) Dec. 7, 1972.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 470 micromhos Dec. 22; minimum daily, 110 micromhos Nov. 22.
WATER TEMPERATURES: Maximum, 31.0°C July 6, Aug. 7; minimum, 0.5°C on several days during winter period.
SEDIMENT CONCENTRATIONS: Maximum daily, 11,000 mg/L July 12; minimum daily, 140 mg/L Aug. 6;
SEDIMENT LOADS: Maximum daily, 123,000 tons (112,000 tonnes) Mar. 13; minimum daily, 310 tons (281 tonnes) Aug. 6.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)
OCT											
20...	1110	1140	234	7.7	7.5	6	55	9.9	3.8	48	360
NOV											
09...	1100	1140	246	--	8.0	7	45	10.0	.8	22	232
DEC											
22...	1045	1130	271	7.8	.5	8	10	11.2	2.0	5	168
JAN											
11...	1430	827	290	7.9	.5	6	10	10.0	9.4	15	26
FEB											
08...	1240	1410	248	7.9	.5	8	8	10.7	1.6	22	45
MAR											
15...	1115	4240	233	8.1	2.5	130	180	9.1	5.4	85	1200
APR											
26...	1120	2330	322	8.3	19.0	45	150	7.8	2.6	260	144
MAY											
17...	0940	1730	293	8.6	17.0	47	80	7.5	3.4	260	860
JUN											
07...	1135	1070	315	7.8	27.0	32	50	8.8	4.5	510	180
JUL											
26...	1050	1690	269	7.3	25.5	34	230	8.0	6.0	1500	--
AUG											
30...	1035	1160	259	7.6	23.5	13	45	9.3	2.4	81	--
SEP											
20...	1030	1270	242	7.7	18.5	30	65	9.6	5.4	710	--

DATE	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)
OCT											
20...	--	100	0	35	4.2	8.6	.4	5.2	138	0	113
NOV											
09...	--	100	0	33	4.5	8.9	.4	5.4	129	0	106
DEC											
22...	--	120	0	37	5.6	10	.4	5.9	155	0	127
JAN											
11...	--	130	0	42	5.9	11	.4	6.1	164	0	135
FEB											
08...	--	100	0	34	4.4	8.5	.4	5.4	140	0	115
MAR											
15...	--	95	5	31	4.2	7.1	.3	5.4	109	0	89
APR											
26...	--	140	4	44	6.2	13	.5	9.0	160	0	130
MAY											
17...	--	120	0	39	5.1	12	.5	8.7	160	0	130
JUN											
07...	--	110	0	37	4.5	13	.5	8.9	160	0	130
JUL											
26...	860	110	0	36	4.8	10	.4	7.5	150	0	120
AUG											
30...	170	110	0	35	4.6	9.4	.4	6.6	140	0	110
SEP											
20...	260	110	0	35	4.6	8.8	.4	6.2	140	0	110

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	DIS-SOLVED NITRITE (N) (MG/L) (00613)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)
OCT 20...	9.7	1.4	.4	46	180	177	.24	550	--	.58
NOV 09...	15	1.0	.3	46	180	178	.24	554	--	.92
DEC 22...	12	1.5	.3	55	205	207	.28	625	--	.81
JAN 11...	12	1.7	.4	59	227	219	.31	507	--	1.1
FEB 08...	12	1.0	.4	49	188	184	.26	714	--	.81
MAR 15...	28	2.5	.2	27	165	162	.22	1800	--	.58
APR 26...	26	2.7	.4	42	232	222	.32	1460	--	.37
MAY 17...	18	2.0	.5	43	215	208	.29	1000	--	.33
JUN 07...	15	2.1	.3	49	217	209	.30	627	--	.03
JUL 26...	13	2.6	--	49	185	197	.25	844	--	.01
AUG 30...	13	1.0	.4	50	189	190	.26	592	--	.01
SEP 20...	11	3.9	.4	49	184	190	.25	631	.00	.37

DATE	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO-GEN (N) (MG/L) (00605)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L) (00625)	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOL-VED PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)
OCT 20...	--	.02	.80	.82	1.4	.25	.07	30	30	0
NOV 09...	--	.00	.75	.75	1.7	.25	.07	30	30	10
DEC 22...	.70	.00	.33	.33	1.1	.05	.03	30	30	20
JAN 11...	--	.03	.19	.22	1.3	.15	.15	30	40	10
FEB 08...	--	.01	.16	.17	.98	.14	.11	20	10	10
MAR 15...	.53	.14	2.1	2.2	2.8	.80	.09	40	100	30
APR 26...	--	.05	2.0	2.0	2.4	.49	.11	60	40	0
MAY 17...	--	.02	.94	.96	1.3	.32	.11	40	30	0
JUN 07...	--	.03	.97	1.0	1.0	.29	.06	40	90	210
JUL 26...	--	.06	4.7	4.8	4.8	.97	.05	40	70	0
AUG 30...	--	.01	.67	.68	.69	.27	.03	40	30	0
SEP 20...	--	.06	.88	.94	1.3	.24	.09	30	10	10

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	DISSOLVED AMMONIA NITROGEN (N) (MG/L) (00608)	DISSOLVED ORGANIC NITROGEN (N) (MG/L) (00607)	SUSPENDED KJEL. NITROGEN (N) (MG/L) (00624)	DISSOLVED KJEL. NITROGEN (N) (MG/L) (00623)	TOTAL ARSENIC (AS) (UG/L) (01002)	SUSPENDED ARSENIC (AS) (UG/L) (01001)	DISSOLVED ARSENIC (AS) (UG/L) (01000)	TOTAL CADMIUM (CD) (UG/L) (01027)
DEC										
22...	1045	19	.00	.33	.00	.33	6	1	5	<10
MAR										
15...	1115	46	.06	.34	1.8	.40	17	--	6	10
JUN										
07...	1135	39	.00	.19	.01	.19	10	2	8	<10
SEP										
20...	1030	25	.02	.37	.55	.39	5	0	5	10

DATE	SUSPENDED CADMIUM (CD) (UG/L) (01026)	DISSOLVED CADMIUM (CD) (UG/L) (01025)	TOTAL CHROMIUM (CR) (UG/L) (01034)	SUSPENDED CHROMIUM (CR) (UG/L) (01031)	DISSOLVED CHROMIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	SUSPENDED COBALT (CO) (UG/L) (01036)	DISSOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	SUSPENDED COPPER (CU) (UG/L) (01041)
DEC										
22...	<9	1	0	0	0	<50	<48	2	10	9
MAR										
15...	9	1	20	20	0	<50	<50	0	30	28
JUN										
07...	--	2	10	0	10	<50	--	0	<10	<7
SEP										
20...	9	1	20	10	10	<50	50	0	10	9

DATE	DISSOLVED COPPER (CU) (UG/L) (01040)	TOTAL IRON (FE) (UG/L) (01045)	TOTAL LEAD (PB) (UG/L) (01051)	SUSPENDED LEAD (PB) (UG/L) (01050)	DISSOLVED LEAD (PB) (UG/L) (01049)	TOTAL MANGANESE (MN) (UG/L) (01055)	SUSPENDED MANGANESE (MN) (UG/L) (01054)	TOTAL MERCURY (HG) (UG/L) (71900)	SUSPENDED MERCURY (HG) (UG/L) (71895)
DEC									
22...	1	630	<100	<97	3	40	40	.1	.1
MAR									
15...	2	16000	<100	<95	5	1500	1500	.2	--
JUN									
07...	3	2400	<100	--	11	240	30	.0	.0
SEP									
20...	1	4400	<100	84	16	240	230	.0	.0

DATE	DISSOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELENIUM (SE) (UG/L) (01147)	SUSPENDED SELENIUM (SE) (UG/L) (01146)	DISSOLVED SELENIUM (SE) (UG/L) (01145)	DISSOLVED SILVER (AG) (UG/L) (01075)	TOTAL ZINC (ZN) (UG/L) (01092)	SUSPENDED ZINC (ZN) (UG/L) (01091)	DISSOLVED ZINC (ZN) (UG/L) (01090)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
DEC									
22...	.0	1	0	1	0	--	0	10	1.9
MAR									
15...	.0	6	4	2	0	80	80	0	21
JUN									
07...	.0	1	--	0	0	20	10	10	9.7
SEP									
20...	.0	0	0	0	0	50	50	0	6.9

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	NOV 9,76	DEC 22,76	JAN 11,77	FEB 8,77	MAY 17,77
TIME	1100	1045	1030	1200	0940
TOTAL CELLS/ML	44000	260	680	670	17000
DIVERSITY: DIVISION	0.6	0.1	1.0	0.0	0.8
.CLASS	0.6	0.1	1.0	0.0	0.8
..ORDER	0.9	0.1	1.6	1.0	1.0
...FAMILY	1.0	2.2	2.1	1.0	2.0
....GENUS	1.0	2.0	2.1	1.6	0.0

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	--	-	*	0
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	--	-	26	4	--	-	--	-
...MICRACTINIACEAE										
....MICRACTINIUM	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	--	-	16	2	550	3
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	3900#	23
....FRANCEIA	--	-	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	*	0	--	-	--	-
....OOCYSTIS	--	-	--	-	*	0	--	-	1200	7
....SELENASTRUM	--	-	--	-	--	-	--	-	280	2
....TETRAEDRON	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	--	-	390	2
....CRUCIGENIA	--	-	--	-	--	-	--	-	220	1
....SCENEDESMUS	4600	10	--	-	61	9	100#	15	5900#	35
....TETRASTRUM	--	-	--	-	--	-	--	-	220	1
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	10	1	28	4	*	0
...PHACOTACEAE										
....PHACOTUS	--	-	2	1	--	-	--	-	--	-
...VOLVOCACEAE	--	-	--	-	--	-	--	-	220	1
....PANDORINA	--	-	--	-	--	-	*	0	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....HYALOTHECA	36000#	82	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	2	1	48	7	67	10	110	1
....MELOSIRA	--	-	--	-	--	-	--	-	--	-
....STEPHANODISCUS	--	-	--	-	--	-	--	-	280	2
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	12	5	--	-	*	0	--	-
....COCCONEIS	--	-	6	2	*	0	*	0	--	-
...CYMBELLACEAE										
....AMPHORA	--	-	--	-	--	-	*	0	--	-
....CYMBELLA	--	-	2	1	*	0	*	0	*	0
....EPITHEMIA	--	-	6	2	*	0	*	0	--	-
....RHOPALODIA	--	-	6	2	*	0	*	0	--	-
...DIATOMACEAE										
....DIATOMA	1200	3	6	2	*	0	*	0	*	0
....OPEPHORA	--	-	--	-	*	0	*	0	*	0
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	--	-	--	-	280	2
....FRAGILARIA	--	-	130#	50	410#	61	420#	62	2400	14
....SYNEDRA	--	-	2	1	*	0	--	-	*	0
...GOMPHONEMATACEAE										
....GOMPHONEMA	1200	3	14	5	6	1	*	0	*	0
...MERIDIONACEAE										
....MERIDION	--	-	--	-	*	0	--	-	--	-
...NAVICULACEAE										
....CALONEIS	--	-	2	1	--	-	*	0	--	-
....MASTOGLOIA	--	-	--	-	*	0	--	-	--	-
....NAVICULA	--	-	53#	20	13	2	*	0	*	0
....NEIDIUM	--	-	--	-	--	-	*	0	--	-
....PINNULARIA	--	-	--	-	*	0	*	0	--	-
...NITZSCHIACEAE										
....DENTICULA	--	-	--	-	--	-	--	-	*	0
....HANTZSCHIA	--	-	--	-	--	-	*	0	--	-
....NITZSCHIA	--	-	19	7	41	6	39	6	830	5
...SURIRELLACEAE										
....SURIRELLA	770	2	2	1	*	0	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	NOV 9,76		DEC 22,76		JAN 11,77		FEB 8,77		MAY 17,77	
TIME	1100		1045		1430		1240		0940	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROCCOCCALES										
...CHROCCOCCAEAE										
....AGMENELLUM	--	-	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	--	-	--	-	--	-	*	0
..HORMOGONALES										
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	48	7	--	-	--	-
....OSCILLATORIA	--	-	--	-	--	-	*	0	--	-
..CHROCCOCCALES										
...CHROCCOCCAEAE										
....GOMPHOSPHAERIA	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	4	1	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....TRACHELOMONAS	380	1	--	-	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
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06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	JUN 7,77	JUL 26,77	AUG 30,77	SEP 20,77
TIME	1135	1055	1035	1030
TOTAL CELLS/ML	68000	130000	210000	28000
DIVERSITY: DIVISION	1.3	1.1	1.2	1.8
.CLASS	1.3	1.1	1.2	1.8
..ORDER	1.3	1.2	1.3	2.4
...FAMILY	1.8	2.2	1.9	3.1
....GENUS	2.1	2.4	2.6	3.3

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	6500	5	*	0	--	-
...MICRACTINIACEAE								
....MICRACTINIUM	--	-	3200	2	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	8300	12	9700	7	44000#	21	1000	4
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-
....FRANCEIA	--	-	--	-	*	0	810	3
....KIRCHNERIELLA	5700	8	--	-	9100	4	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	1600	1	410	1
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	--	-
....CRUCIGENIA	--	-	--	-	--	-	--	-
....SCENEDESMUS	13000#	20	60000#	47	58000#	27	5500#	20
....TETRASTRUM	2100	3	2200	2	3300	2	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	2000	7
...PHACOTACEAE								
....PHACOTUS	--	-	--	-	--	-	--	-
...VOLVOCACEAE	--	-	--	-	--	-	--	-
....PANDORINA	--	-	--	-	--	-	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....HYALOTHECA	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	1500	2	1100	1	6600	3	4300#	15
....MELOSIRA	--	-	*	0	--	-	--	-
....STEPHANODISCUS	--	-	--	-	*	0	610	2
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	1600	1	--	-
...CYMBELLACEAE								
....AMPHORA	--	-	--	-	--	-	810	3
....CYMBELLA	--	-	--	-	--	-	--	-
....EPITHEMIA	--	-	--	-	--	-	--	-
....RHOPALODIA	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	--	-	--	-	--	-
....OPEPHORA	--	-	--	-	--	-	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	--	-	--	-	--	-
....FRAGILARIA	--	-	27000#	21	--	-	--	-
....SYNEDRA	520	1	--	-	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	1000	4
...MERIDIONACEAE								
....MERIDION	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....CALONEIS	--	-	--	-	--	-	--	-
....MASTOGLOIA	--	-	--	-	--	-	--	-
....NAVICULA	2600	4	--	-	*	0	1000	4
....NEIDIUM	--	-	--	-	1600	1	--	-
....PINNULARIA	--	-	--	-	--	-	--	-
...NITZSCHIACEAE								
....DENTICULA	--	-	--	-	--	-	--	-
....HANTZSCHIA	--	-	--	-	--	-	--	-
....NITZSCHIA	--	-	14000	11	*	0	3500	13
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE TIME	JUN 7,77 1135		JUL 26,77 1055		AUG 30,77 1035		SEP 20,77 1030	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROCCOCCALES								
...CHROCCOCCAEAE								
....AGMENELLUM	--	-	2200	2	--	-	--	-
....ANACYSTIS	34000#	50	2200	2	32000#	15	4100	15
..HORMOGONALES								
...OSCILLATORIACEAE								
....LYNGBYA	--	-	--	-	--	-	--	-
....OSCILLATORIA	--	-	--	-	--	-	--	-
..CHROCCOCCALES								
...CHROCCOCCAEAE								
....GOMPHOSPHAERIA	--	-	--	-	49000#	24	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.CRYPTOPHYCEAE								
..CRYPTOMONIDALES								
...CRYPTOMONODACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	--	-
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	--	-	--	-	2600	10

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	CHLOR-A PERI- PHYTON CHROMO- SPECT- METRIC (MG/M2) (70955)	CHLOR-B PERI- PHYTON CHROMO- SPECT- METRIC (MG/M2) (70956)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70958)
OCT					
20...	2151	.179	.157	--	--
JUN					
07...	3333	--	--	.048	.016
JUL					
26...	2626	--	--	.100	.000

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	251	129	308	307	262	204	460	309	337	288	258	263
2	250	158	228	297	222	258	330	337	310	267	255	285
3	250	155	292	259	248	218	335	325	315	267	256	260
4	252	157	269	288	218	222	331	337	308	267	255	263
5	251	121	289	278	225	227	327	337	310	269	257	270
6	251	167	192	225	242	222	327	328	295	252	259	268
7	254	139	323	374	275	232	325	315	304	264	264	275
8	254	158	312	358	220	237	348	307	280	300	260	265
9	254	330	225	330	268	228	318	321	298	273	258	268
10	253	158	215	304	215	238	325	298	283	302	258	263
11	254	201	320	296	215	238	300	298	297	320	265	264
12	254	209	370	283	268	252	328	318	297	263	260	258
13	252	292	253	280	228	222	327	313	289	275	260	265
14	252	184	368	276	225	258	325	313	317	278	260	260
15	246	244	408	273	248	268	331	300	353	258	258	260
16	242	184	448	270	237	258	322	305	320	268	268	260
17	248	173	410	266	212	258	299	302	306	267	258	267
18	248	179	430	266	234	255	335	308	317	268	256	258
19	246	248	454	262	217	258	313	298	308	272	253	268
20	248	266	421	253	213	258	335	295	297	267	248	263
21	250	259	447	266	218	288	327	297	290	272	258	260
22	252	110	470	258	254	268	325	298	298	267	264	267
23	248	282	450	255	233	263	323	308	294	258	249	265
24	250	172	442	247	213	288	323	304	294	278	242	268
25	246	135	442	253	234	274	323	297	288	276	247	270
26	250	232	460	249	235	264	297	302	315	253	248	267
27	249	190	448	262	238	284	300	297	303	258	247	273
28	248	220	445	271	348	264	318	306	297	257	238	269
29	248	250	444	261	---	258	328	296	306	258	247	267
30	251	285	438	260	---	280	307	297	297	253	247	268
31	185	---	377	268	---	257	---	297	---	255	240	---

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	10.5	8.5	3.0	.0	.0	1.5	1.0	1.0	.5	1.0	.5
2	18.5	10.5	6.5	3.5	.0	.0	.5	.5	.5	.0	.5	.5
3	16.5	13.0	4.0	.5	.0	---	.5	.0	.5	.0	.5	.5
4	13.0	9.5	1.5	---	.0	---	.5	.5	.5	.0	.5	.5
5	13.0	7.0	4.5	---	---	---	.5	.5	1.0	.0	.5	.5
6	10.0	6.0	4.5	.5	.5	.0	1.0	.5	.5	.5	.5	.0
7	11.5	5.0	3.5	---	.5	.0	.5	.0	.5	.0	.5	.0
8	13.0	5.0	5.0	---	.5	.0	1.0	.0	.5	.0	.5	.0
9	14.5	5.5	5.0	1.0	.0	---	1.0	.5	.5	.0	.5	.0
10	16.5	6.5	3.0	---	.5	.0	1.0	.5	.5	.0	.0	.0
11	15.0	9.0	---	---	.0	---	1.0	.5	.5	.0	.5	.0
12	15.0	9.0	.0	.0	.5	.0	1.0	.5	.5	.0	.5	.5
13	15.0	8.0	.0	.0	.5	---	.5	.5	.5	.0	.5	.5
14	14.0	8.0	---	---	.5	.0	.5	.0	.5	.5	.5	.5
15	8.5	3.5	---	---	.5	.0	1.0	.5	1.0	.5	1.0	.5
16	8.0	1.5	---	---	.5	.0	1.0	.5	1.0	1.0	1.5	.5
17	4.5	1.0	1.0	---	.5	---	1.0	.5	1.0	.5	3.5	1.5
18	3.0	1.0	1.5	---	.5	---	1.0	.5	1.0	1.0	4.0	2.0
19	4.0	.5	1.0	---	.5	.5	.5	.0	1.0	.5	4.0	3.0
20	6.0	.5	1.0	---	1.0	.5	.5	.0	1.0	.5	3.0	1.0
21	5.5	.5	---	---	1.0	.0	.5	.0	1.0	.0	4.0	.5
22	5.5	.0	---	---	.5	.5	.0	.0	1.0	.5	7.0	1.0
23	3.5	1.0	---	---	1.0	.5	.5	.0	.5	.5	9.0	4.0
24	3.0	1.0	.0	.0	.5	.5	.5	.0	.5	.5	11.5	5.0
25	3.5	.0	1.5	.0	.5	.5	.5	.5	.5	.5	10.5	7.0
26	2.0	.5	1.5	.0	.5	.5	.5	.5	.5	.5	9.5	7.0
27	3.0	---	---	---	.5	.0	1.0	.5	.5	.5	13.0	6.0
28	5.0	---	---	---	1.0	.5	1.5	1.0	.5	.5	10.0	8.5
29	7.0	.5	.0	.0	1.0	1.0	1.5	1.0	---	---	8.5	6.5
30	7.0	1.5	.0	.0	1.5	1.0	1.0	1.0	---	---	6.5	3.5
31	6.5	1.0	---	---	1.5	1.0	1.0	.5	---	---	5.0	1.5
MONTH	18.5	.0	8.5	.0	1.5	.0	1.5	.0	1.0	.0	13.0	.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.5	5.0	14.5	14.0	28.5	19.0	30.0	17.0	30.0	19.5	20.5	18.0
2	6.0	5.5	14.5	14.0	28.5	19.5	28.0	20.0	32.0	20.0	21.0	16.0
3	6.0	5.5	14.5	14.0	30.0	20.5	35.0	23.0	33.0	21.0	28.0	18.0
4	4.5	4.5	15.5	14.5	34.0	23.0	34.0	25.0	31.5	21.5	28.0	20.5
5	5.5	5.0	16.0	15.0	35.0	25.5	34.5	21.5	25.5	21.5	28.0	19.5
6	5.5	5.0	16.0	15.5	29.5	23.0	30.5	26.0	28.5	19.5	30.0	21.0
7	6.0	5.5	16.0	16.0	28.5	20.5	34.0	24.0	30.5	21.5	28.0	21.5
8	6.5	6.0	16.0	15.5	28.5	22.0	30.5	23.0	26.0	22.0	26.5	17.0
9	8.0	6.5	16.5	16.0	24.5	20.0	26.5	21.5	29.0	20.5	21.5	15.0
10	8.5	8.0	16.5	16.5	28.5	20.0	24.0	20.5	24.5	16.5	23.5	14.0
11	9.5	8.5	16.5	16.0	27.0	22.0	25.0	22.0	26.0	15.0	23.0	15.5
12	11.0	9.5	16.5	16.0	24.5	21.0	28.0	23.0	29.5	17.0	23.0	17.0
13	11.0	11.0	17.0	16.5	21.0	20.0	29.5	24.0	28.0	19.0	26.0	18.0
14	11.0	10.5	17.0	17.0	21.0	20.5	26.5	24.5	26.0	19.5	25.0	16.0
15	11.0	10.5	17.0	17.0	21.0	21.0	28.5	24.0	25.5	20.0	23.0	15.0
16	12.0	11.5	17.0	17.0	21.0	21.0	31.0	25.0	27.0	20.0	20.0	16.5
17	13.0	12.0	17.0	17.0	21.0	20.5	30.0	26.0	29.5	20.0	26.0	18.0
18	13.0	13.0	18.0	17.0	21.0	21.0	30.0	26.5	23.5	19.5	22.0	16.0
19	13.0	12.0	18.0	18.0	22.0	21.0	29.5	25.5	29.0	19.0	21.0	13.5
20	12.0	11.0	18.5	18.0	22.0	21.5	28.5	24.0	30.0	20.0	21.5	13.5
21	11.0	10.0	19.5	17.0	22.0	21.0	26.5	22.0	28.5	20.0	18.5	15.5
22	11.5	10.5	18.5	17.0	21.0	20.5	27.0	23.5	25.0	20.5	22.0	14.0
23	11.5	11.0	25.0	16.5	23.0	21.0	29.0	24.5	26.5	20.0	23.0	14.0
24	12.0	11.5	26.5	20.5	24.0	23.0	29.0	25.5	26.0	19.0	19.5	11.5
25	12.0	11.5	24.5	21.0	27.0	23.0	30.0	23.5	30.0	21.0	20.5	13.5
26	12.0	12.0	22.0	20.5	31.5	24.0	26.0	22.0	32.0	24.5	21.5	13.5
27	13.5	13.0	23.0	19.5	31.5	24.0	30.5	20.5	28.0	21.0	22.0	14.0
28	13.5	13.5	23.0	19.0	28.0	21.0	32.0	23.0	26.0	19.0	19.0	14.5
29	13.5	13.5	29.5	19.0	27.0	20.0	34.5	23.0	25.0	19.0	18.0	16.5
30	14.0	13.5	26.5	21.0	25.0	18.5	29.5	22.0	26.5	20.5	17.0	15.0
31	---	---	26.0	18.5	---	---	27.0	19.5	25.5	20.5	---	---
MONTH	14.0	4.5	29.5	14.0	35.0	18.5	35.0	17.0	33.0	15.0	30.0	11.5

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SUS- PENDED SEDI- MENT (MG/L) (80154)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)
OCT							
20...	1250	1130	868	2650	--	--	--
NOV							
09...	1305	1150	1110	3450	--	--	--
DEC							
22...	1330	1100	273	811	--	--	--
FEB							
08...	1335	1300	222	779	--	--	--
MAR							
15...	1340	4160	3420	38400	8	11	16
APR							
05...	1350	3440	3530	32800	--	--	--
26...	1330	2360	1640	10500	12	18	26
MAY							
17...	1130	1710	1130	5220	--	--	--
JUN							
07...	1305	1130	1160	3540	--	--	--
28...	1140	1250	816	2750	22	28	31
JUL							
26...	1305	1790	2580	12500	25	32	56
AUG							
09...	1205	1590	1660	7130	--	--	--
30...	1230	1100	1160	3450	--	--	--

DATE	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM (70346)	SUS. SED. FALL DIAM. % FINER THAN 2.00 MM (70347)
OCT						
20...	10	47	84	99	100	--
NOV						
09...	29	45	89	100	--	--
DEC						
22...	13	25	70	97	100	--
FEB						
08...	12	23	62	97	100	--
MAR						
15...	31	45	77	94	99	100
APR						
05...	28	45	83	96	100	--
26...	34	47	79	98	100	--
MAY						
17...	23	43	90	100	--	--
JUN						
07...	14	--	50	81	100	--
28...	42	62	90	100	--	--
JUL						
26...	70	86	98	99	100	--
AUG						
09...	27	47	83	97	100	--
30...	16	25	68	91	100	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	NUMBER OF SAM- PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
OCT., 1976												
20...	1250	1130	5	--	0	27	88	99	99	100	--	--
NOV												
09...	1305	1150	5	--	0	45	96	99	99	100	--	--
DEC												
22...	1330	1100	5	--	0	29	88	96	98	99	100	--
FEB., 1977												
08...	1335	1300	3	0	1	20	80	95	98	99	100	--
MAR												
15...	1340	4160	5	0	1	33	75	95	99	100	--	--
APR												
05...	1350	3440	5	0	1	32	82	91	96	99	100	--
26...	1330	2360	5	0	2	40	92	97	99	100	--	--
MAY												
17...	1130	1710	5	0	1	48	94	100	--	--	--	--
JUN												
07...	1305	1130	5	0	3	36	95	100	--	--	--	--
28...	1140	1250	5	0	3	39	90	98	99	100	--	--
JUL												
26...	1305	1790	5	--	0	29	73	92	94	97	99	100
AUG												
09...	1204	1590	5	--	0	33	89	96	99	100	--	--
30...	1230	1100	5	--	0	36	94	100	--	--	--	--

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	920	400	990	1060	1400	4000	200	2800	1500
2	900	410	1000	1040	1500	4200	250	3200	2200
3	880	400	950	980	1400	3700	380	3300	3400
4	920	390	970	1060	1200	3400	370	3400	3400
5	920	420	1000	1080	1000	2900	540	3300	4800
6	900	480	1200	1060	910	2600	840	3000	6800
7	940	450	1100	1080	910	2700	1060	2000	5700
8	980	390	1000	1080	960	2800	1060	1000	2900
9	1000	360	970	1060	1100	3100	980	1100	2900
10	1000	360	970	1040	980	2800	1020	1300	3600
11	1120	380	1100	960	980	2500	1040	1200	3400
12	1100	400	1200	370	1000	1000	1100	1100	3300
13	920	370	920	600	1100	1800	1160	920	2900
14	920	330	820	760	1100	2300	1250	800	2700
15	920	320	790	920	960	2400	1240	660	2200
16	1000	320	860	940	830	2100	1300	530	1900
17	940	360	910	1300	860	3000	1300	380	1300
18	1080	420	1200	2150	930	5400	1450	270	1100
19	1140	610	1900	1400	800	3000	1500	290	1200
20	1080	800	2300	1160	640	2000	1350	360	1300
21	1080	550	1600	1100	680	2000	1220	410	1400
22	1020	300	830	720	760	1500	1100	460	1400
23	1000	360	970	980	860	2300	1080	560	1600
24	1060	470	1300	1100	960	2900	1120	690	2100
25	1040	450	1300	1500	940	3800	1160	880	2800
26	1040	400	1100	1140	920	2800	1220	1000	3300
27	1100	360	1100	160	1200	520	1300	790	2800
28	1120	340	1000	140	1600	600	1400	480	1800
29	1080	600	1700	160	2000	860	1400	400	1500
30	1080	970	2800	180	2400	1200	1200	380	1200
31	1080	1200	3500	---	---	---	940	410	1000
TOTAL	31280	---	39350	28280	---	76180	32530	---	79400

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	740	460	920	1080	1400	4100	1800	700	3400
2	740	520	1000	1100	1400	4200	1700	650	3000
3	680	670	1200	1180	1200	3800	1500	440	1800
4	720	810	1600	1240	1000	3300	1200	240	780
5	840	660	1500	1300	760	2700	1100	700	2100
6	940	420	1100	1300	550	1900	1220	1300	4300
7	1040	440	1200	1250	500	1700	1500	1100	4500
8	1020	530	1500	1300	520	1800	1900	1000	5100
9	1000	550	1500	1400	610	2300	2250	1000	6100
10	900	570	1400	1500	710	2900	2700	1300	9500
11	900	600	1500	1550	570	2400	3400	3300	30000
12	820	620	1400	1650	360	1600	5600	5600	85000
13	860	640	1500	1700	390	1800	6400	7100	123000
14	860	670	1600	1800	510	2500	4200	3200	36000
15	900	700	1700	1800	680	3300	4200	940	11000
16	920	720	1800	1750	860	4100	3000	800	6500
17	1000	760	2100	1850	720	3600	3100	760	6400
18	920	790	2000	1950	500	2600	3100	660	5500
19	940	820	2100	1950	410	2200	2600	630	4400
20	940	850	2200	1950	360	1900	2300	600	3700
21	960	890	2300	1950	390	2100	1750	580	2700
22	900	920	2200	2100	440	2500	2700	580	4200
23	960	960	2500	2150	470	2700	2050	630	3500
24	1020	990	2700	1950	500	2600	2200	700	4200
25	1080	1000	2900	1900	360	1800	2400	700	4500
26	1160	1100	3400	1800	210	1000	2500	690	4700
27	1240	1100	3700	2050	410	2300	2700	680	5000
28	1220	1200	4000	1950	660	3500	3000	670	5400
29	1160	1200	3800	---	---	---	4000	620	6700
30	1120	1300	3900	---	---	---	3700	570	5700
31	1100	1300	3900	---	---	---	3600	580	5600
TOTAL	29600	---	66120	46450	---	73200	85370	---	404280

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	2600	640	4500	2000	660	3600	2000	370	2000
2	2450	680	4500	1850	600	3000	1850	320	1600
3	2700	580	4200	1850	620	3100	1650	570	2500
4	2900	740	5800	1650	660	2900	1500	950	3800
5	3000	2700	22000	1700	620	2800	1400	1000	3800
6	2900	1100	8600	1600	550	2400	1350	1000	3600
7	2700	430	3100	1650	550	2500	1350	1100	4000
8	2500	460	3100	2350	590	3700	1180	940	3000
9	2450	470	3100	2500	620	4200	1200	820	2700
10	2450	470	3100	3100	640	5400	1180	770	2500
11	2400	440	2900	3300	640	5700	1140	800	2500
12	2700	410	3000	2800	630	4800	1550	880	3700
13	2800	400	3000	2800	610	4600	2250	940	5700
14	2900	410	3200	2350	580	3700	2350	980	6200
15	2600	400	2800	2150	610	3500	1600	840	3600
16	2600	380	2700	1950	670	3500	1550	600	2500
17	2500	430	2900	1650	1000	4500	2600	480	3400
18	2600	500	3500	1500	760	3100	3200	440	3800
19	2700	600	4400	1700	680	3100	2400	460	3000
20	3500	2400	23000	1900	780	4000	1700	540	2500
21	4300	2000	23000	2600	640	4500	1900	590	3000
22	3900	400	4200	4300	420	4900	1550	620	2600
23	3500	460	4300	3900	620	6500	1080	540	1600
24	2600	510	3600	2800	1000	7600	1500	400	1600
25	3300	460	4100	2600	980	6900	1500	410	1700
26	3600	410	4000	2350	700	4400	1350	470	1700
27	2050	470	2600	2600	520	3700	1240	640	2100
28	1950	560	2900	2500	400	2700	1300	940	3300
29	2000	620	3300	2350	390	2500	1220	1900	6300
30	2050	690	3800	2500	450	3000	1120	2600	7900
31	---	---	---	2150	430	2500	---	---	---
TOTAL	83200	---	169200	73000	---	123300	48760	---	98200

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	1060	1600	4600	800	230	500	1080	820	2400
2	1060	800	2300	820	200	440	1100	650	1900
3	1020	850	2300	860	180	420	1040	740	2100
4	1020	1000	2800	900	160	390	1200	850	2800
5	860	1800	4200	800	150	320	1500	670	2700
6	820	2500	5500	820	140	310	1100	470	1400
7	1180	2800	8900	800	160	350	1000	450	1200
8	1060	2800	8000	1350	200	730	1000	510	1400
9	980	2800	7400	1850	1400	7000	1040	490	1400
10	2700	6200	45000	1600	540	2300	960	480	1200
11	2150	9800	57000	1850	220	1100	900	550	1300
12	1600	11000	48000	1350	240	870	940	695	1800
13	1250	9400	32000	1220	240	790	1300	800	2800
14	1060	2400	6900	1140	240	740	1040	830	2300
15	1020	480	1300	1160	230	720	1020	670	1800
16	860	580	1300	1120	210	640	1000	510	1400
17	820	480	1100	1080	200	580	1450	500	2000
18	800	370	800	1040	190	530	1650	580	2600
19	740	350	700	1160	280	880	1200	760	2500
20	720	400	780	960	400	1000	1080	950	2800
21	860	560	1300	960	320	830	1300	1100	3900
22	720	770	1500	960	210	540	2000	1300	7000
23	900	660	1600	1020	280	770	1400	1200	4500
24	960	400	1000	1020	360	990	1300	1100	3900
25	1160	320	1000	1080	390	1100	1140	1000	3100
26	1800	1500	7300	980	430	1100	1100	1000	3000
27	1160	1400	4400	1200	440	1400	1080	1100	3200
28	1060	410	1200	1300	450	1600	1100	1200	3600
29	920	320	790	1160	500	1600	1140	1400	4300
30	860	290	670	1060	1100	3100	1500	1600	6500
31	820	260	580	1060	990	2800	---	---	---
TOTAL	33980	---	262220	34480	---	36440	35660	---	82800

06466500 BAZILE CREEK NEAR NIOBRARA, NE

LOCATION.--Lat 42°45'00", long 97°56'10", in NE1/4 sec.18, T.32 N., R.5 W., Knox County, Hydrologic Unit 10170101, on downstream side of left pier of bridge on State Highway 12, 2.5 mi (4.0 km) upstream from mouth and 4.5 mi (7.2 km) east of Niobrara.

DRAINAGE AREA.--440 mi² (1,140 km²), approximately.

PERIOD OF RECORD.--May 1952 to current year. Records for October 1931 to September 1932, published in WSP 731, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1279: 1952. WSP 1729: 1958(M). See also PERIOD OF RECORD.

GAGE (CORRECTED).--Water-stage recorder and nonrecording gage read once daily. Datum of gage is 1,210.61 ft (369.055 m) above mean sea level. Prior to Dec. 16, 1952, nonrecording gage only, and Dec. 16, 1952, to June 16, 1957, water-stage recorder, above 4.2 ft (1.28 m), at present site at datum 4 ft (1.2 m) higher. June 17, 1957, to Sept. 14, 1958, water-stage recorder above 8.2 ft (2.50 m) at present datum. Sept. 15, 1958 to Sept. 30, 1960, water-stage recorder above 4.3 ft (1.31 m).

REMARKS.--Records good except those for winter period, which are poor. Minor diversions for irrigation above station.

AVERAGE DISCHARGE.--25 years, 83.7 ft³/s (2.370 m³/s), 60,640 acre-ft/yr (74.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,600 ft³/s (1,940 m³/s) June 16, 1957, gage height, 19.96 ft (6.084 m), present datum, from high point on surge, from rating curve extended above 6,500 ft³/s (184 m³/s) on basis of contracted-opening measurements at gage heights 15.36 ft (4.682 m) and 19.96 ft (6.084 m), present datum; maximum gage height, 20.25 ft (6.172 m) Feb. 19, 1971, backwater from ice; no flow July 24, 25, Aug. 30, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 19, 1951, reached a stage of 15.36 ft (4.682 m), present datum, from floodmarks, discharge, 24,400 ft³/s (691 m³/s) on basis of contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,400 ft³/s (39.6 m³/s) May 21, gage height, 13.73 ft (4.185 m), no peak above base of 2,000 ft³/s (56.6 m³/s); maximum gage height observed, 13.98 ft (4.261 m) Mar. 4, backwater from ice; minimum daily discharge, 8.4 ft³/s (0.24 m³/s) Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	35	20	15	31	76	74	43	40	52	8.9	20
2	25	33	20	15	30	74	58	41	36	26	9.4	22
3	24	34	22	21	35	76	62	42	33	22	8.4	22
4	24	35	24	20	36	80	57	42	30	17	8.9	25
5	24	38	23	22	35	86	51	41	28	13	11	24
6	24	37	22	23	29	98	56	37	24	18	11	21
7	25	36	23	22	31	110	54	38	23	19	10	18
8	26	40	24	23	35	125	58	38	23	16	14	17
9	27	38	24	22	38	150	52	38	23	15	24	15
10	28	40	25	19	42	180	50	36	23	26	19	15
11	27	30	25	21	41	230	52	36	24	20	22	19
12	27	20	27	24	46	300	46	34	29	22	17	30
13	27	19	32	23	46	400	51	34	35	17	15	36
14	26	21	33	23	54	240	57	33	33	20	14	24
15	24	25	35	24	68	135	88	31	29	22	15	20
16	26	30	36	24	70	85	114	29	28	18	17	21
17	29	35	37	29	76	68	98	30	389	17	17	20
18	31	37	37	32	82	66	76	30	230	14	22	20
19	33	24	36	33	80	62	60	37	56	11	19	19
20	33	22	17	35	82	54	92	52	40	11	17	19
21	33	17	20	36	85	58	209	437	41	20	17	19
22	34	18	28	36	82	57	223	385	76	24	17	20
23	33	19	29	36	80	57	111	175	36	23	18	19
24	33	21	32	36	80	56	76	102	30	22	18	17
25	34	22	30	35	92	48	66	66	27	21	21	17
26	35	15	30	34	90	54	57	54	23	19	22	16
27	35	13	41	24	82	51	52	62	22	17	20	16
28	35	10	27	19	80	64	45	58	20	15	22	18
29	35	12	20	19	---	92	45	51	22	14	19	26
30	35	20	12	21	---	82	44	46	112	11	17	37
31	35	---	15	26	---	74	---	43	---	8.9	20	---
TOTAL	913	796	826	792	1658	3388	2234	2221	1553	598.9	510.6	635
MEAN	29.5	26.5	26.6	25.5	59.2	109	74.5	71.6	51.8	19.3	16.5	21.2
MAX	35	40	41	36	92	400	223	437	389	52	24	38
MIN	24	10	12	15	29	48	44	29	22	8.9	8.4	15
AC-FT	1810	1580	1640	1570	3290	6720	4430	4410	3080	1190	1010	1260

CAL YR 1976 TOTAL 14002.93 MEAN 40.4 MAX 153 MIN .00 AC-FT 29360
WTR YR 1977 TOTAL 16125.50 MEAN 44.2 MAX 437 MIN 8.4 AC-FT 31980

06467000 LEWIS AND CLARK LAKE NEAR YANKTON, SD

LOCATION.--Lat 42°50'56", long 97°28'54", in SW1/4 sec.7, T.33 N., R.1 W., Cedar County, Ne., Hydrologic Unit 10170101, in powerhouse of Gavins Point Dam on Missouri River, 3.75 mi (6.03 km) southwest of Yankton, 13.6 mi (21.9 km) upstream from James River, 32.5 mi (52.3 km) downstream from Niobrara River, and at mi 811.0 (1,304.9 km).

DRAINAGE AREA.--279,500 mi² (723,900 km²), approximately.

PERIOD OF RECORD.--July 1955 to current year (monthend contents only). Prior to October 1955, published as Gavins Point Reservoir near Yankton.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Dec. 9, 1955, recorder at temporary location on wall of intake structure unit 3.

REMARKS.--Reservoir is formed by earthfill dam; storage began in July 1955. Maximum capacity, 541,000 acre-ft (0.667 km³) below elevation 1,210.0 ft (368.81 m), top of spillway gates. Normal maximum, 477,000 acre-ft (0.588 km³) below elevation 1,208.0 ft (368.20 m). Inactive storage, 156,000 acre-ft (0.192 km³) below elevation 1,195.0 ft (364.24 m). Dead storage, 18,000 acre-ft (22.2 hm³) below elevation 1,180.0 ft (359.66 m), crest of spillway. Figures given herein represent elevations at powerhouse and total contents adjusted for wind effect.

The spillway consists of 14 Tainter gates, each 40 ft (12 m) wide by 30 ft (9 m) high; spillway capacity, 280,000 ft³/s (7,930 m³/s) at pool elevation 1,210.0 ft (368.81 m). Crest of spillway is at elevation 1,180 ft (360 m). Normal releases are through 3 power units, installation completed in January 1957; maximum release through power units is 35,000 ft³/s (991 m³/s) at pool elevation 1,210.0 ft (368.81 m). Water is used for flood control, navigation, power, and incidental uses.

COOPERATION.--Elevations and contents furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 565,000 acre-ft (0.697 km³) Apr. 1, 1960, elevation, 1,210.7 ft (369.02 m), affected by wind; minimum since initial filling, 61,950 acre-ft (76.4 hm³) Apr. 23, 1956, elevation, 1,188.1 ft (362.13 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 479,000 acre-ft (0.591 km³) Dec. 28, elevation, 1,208.8 ft (368.44 m); minimum, 364,000 acre-ft (0.449 km³) May 17, elevation, 1,204.7 ft (367.19 m).

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	1,208.2	462,000	-
Oct. 31	1,208.1	461,000	-1,000
Nov. 30	1,207.5	440,000	-21,000
Dec. 31	1,207.6	441,000	+1,000
CAL YR 1976	-	-	-25,000
Jan. 31	1,207.7	447,000	+6,000
Feb. 28	1,205.3	380,000	-67,000
Mar. 31	1,205.7	396,000	+16,000
Apr. 30	1,205.6	386,000	-10,000
May 31	1,205.6	389,000	+3,000
June 30	1,207.4	436,000	+47,000
July 31	1,207.2	430,000	-6,000
Aug. 31	1,208.1	457,000	+27,000
Sept. 30	1,208.2	463,000	+6,000
WTR YR 1977	-	-	+1,000

NOTE.--Reservoir frozen over Dec. 3 to Mar. 26.

06467500 MISSOURI RIVER AT YANKTON, SD

LOCATION.--Lat 42°51'58", long 97°23'37", in SW1/4SW1/4 sec.18, T.93 N., R.55 W., Yankton County, Hydrologic Unit 10170101, near left bank in downstream end of left pier of Meridian Highway Bridge on U.S. Highway 81, 5.2 mi (8.4 km) downstream from Gavins Point Dam, 6.0 mi (9.7 km) upstream from James River, and at mi 805.8 (1,296.5 km).

DRAINAGE AREA.--279,500 mi² (723,900 km²), approximately.

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1309. Gage-height records collected at same site March 1873 to November 1886, March 1905 to May 1906 (fragmentary), August 1921 to date (except winter months prior to 1932) are contained in reports of the U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 1,139.68 ft (347.374 m) above mean sea level. Prior to Sept. 20, 1932, nonrecording gage and Sept. 20, 1932, to Mar. 9, 1967, water-stage recorder at present site and at datum 20.00 ft (6.096 m) higher.

REMARKS.--Records good. Flow completely regulated by Lewis and Clark Lake (station 06467000) 5.2 mi (8.4 km) upstream since July 1955. Many diversions for irrigation and water supply above station. Corps of Engineers gage-height telemeter at station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--47 years, 26,090 ft³/s (738.9 m³/s), 18,900,000 acre-ft/yr (23.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 480,000 ft³/s (13,600 m³/s) Apr. 13, 1952; maximum gage height, 35.5 ft (10.82 m) Apr. 13, 14, 1952 (present datum); minimum daily discharge, 2,760 ft³/s (76.5 m³/s) Nov. 15, 16, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 50.5 ft (15.39 m) Apr. 5, 1881, ice jam, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 42,000 ft³/s (1,190 m³/s) Dec. 2, gage height, 19.99 ft (6.093 m); maximum gage height, 20.22 ft (6.163 m) Oct. 1; minimum daily, 14,500 ft³/s (411 m³/s) Feb. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38400	36000	41500	19200	15000	14700	30100	31600	31500	32900	36700	30900
2	37600	36400	41700	19200	15000	15300	28800	31700	31500	32900	36200	31100
3	37500	36200	39300	19400	15600	14900	28500	31800	31400	33000	36200	31100
4	37300	36200	34700	19900	15700	14800	28600	31700	31400	33000	36500	31000
5	37400	36000	30200	19600	16700	14700	28300	30900	31300	33700	36000	30900
6	36800	36100	26600	18800	16800	14900	29100	30800	31100	34200	33700	31000
7	36700	36200	23600	19400	17100	15000	29800	30800	31500	34100	33600	30800
8	36200	36200	22300	19600	17700	15000	30200	30800	32700	34500	33900	30900
9	35400	36500	20800	19900	18600	14600	30100	30300	33300	33300	34000	31100
10	35700	36800	20600	20000	19600	15400	30600	30200	33500	33800	31000	31200
11	35800	36700	20800	20000	19900	15100	30600	30300	34400	33800	31500	31600
12	35900	37000	20300	20000	19700	14900	30300	31200	34200	33300	32700	30900
13	36200	36700	20300	20300	16000	14900	30100	31900	33000	33400	33800	30500
14	35800	36700	20400	20000	14500	14900	30500	32100	33000	32700	34000	31300
15	36300	36600	19900	20100	14900	14900	30000	32200	33300	33100	34700	32400
16	36200	36900	20100	20300	15000	14900	30000	32600	33000	33500	32200	32000
17	36300	36900	20100	19900	15000	17000	30000	32700	33000	33400	31300	31900
18	36200	37000	20100	20600	14900	20600	30000	33200	31700	33400	32200	31600
19	35800	37200	19900	20300	14900	23700	30000	33300	31200	33900	32600	31600
20	35700	37100	20100	20200	15000	27300	30000	32100	32100	34200	33300	31800
21	35500	37200	20500	19900	15000	28200	29400	32800	32500	34100	33400	31800
22	35600	37200	19400	19900	15100	28100	29500	31200	32600	32700	33100	32400
23	35800	37000	19900	17300	15000	30400	29300	30600	30100	31800	33100	33000
24	35500	37100	19500	15300	14800	30900	30000	30900	29800	32500	33100	32900
25	35700	37100	19500	15000	14900	30100	29700	30900	30000	32500	32200	32800
26	36000	37000	19600	15100	14900	29800	30100	30900	30000	32700	31100	32600
27	35600	37000	19300	15100	14900	30000	30000	31100	31800	33500	31000	32500
28	35600	37000	19200	15000	14900	30100	30600	31000	32100	35100	31100	32700
29	35800	36800	16100	15000	---	28100	31200	31200	31200	35100	32200	32600
30	36200	38000	19400	15000	---	26300	31700	31400	31600	35900	32400	32400
31	36000	---	19600	15000	---	29600	---	31300	---	36700	31000	---
TOTAL	1122500	1102800	715300	574500	447100	649100	897100	975100	959000	1042700	1026600	951500
MEAN	36210	36760	23070	18530	15970	20940	29900	31450	31990	33640	33120	31720
MAX	38400	38000	41700	20800	19900	30900	31700	33300	34400	36700	36700	33000
MIN	35400	36000	16100	15000	14500	14600	28300	30200	29800	31800	31000	30500
AC-FT	2226000	2187000	1419000	1140000	886800	1287000	1779000	1934000	1904000	2068000	2036000	1887000

CAL YR 1976 TOTAL 12252100 MEAN 33480 MAX 41700 MIN 16100 AC-FT 24300000
WTR YR 1977 TOTAL 10464100 MEAN 28670 MAX 41700 MIN 14500 AC-FT 20760000

06486000 MISSOURI RIVER AT SIOUX CITY, IA
(National stream-quality accounting network station)

LOCATION.--Lat 42°29'10", long 96°24'47", in NE1/4SE1/4 sec.16, T.29 N., R.9 E., sixth principal meridian, Dakota County, Nebr., Hydrologic Unit 10230001, on right bank on upstream side of bridge on U.S. Highway 77 at South Sioux City, Nebr, 2.0 mi (3.2 km) downstream from Big Sioux River and at mi 732.3 (1,178.3 km).

DRAINAGE AREA.--314,600 mi² (814,800 km²), approximately.

PERIOD OF RECORD.--October 1897 to current year in reports of Geological Survey. Prior to October 1928 and October 1931 to September 1938 monthly discharge only, published in WSP 1310. January 1879 to December 1890 (monthly discharge only) in House Document 238, 73rd Congress, 2d session, Missouri River. Gage-height records collected in this vicinity September 1878 to December 1899 are contained in reports of Missouri River Commission and since July 1889 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 716: 1929-30. WSP 976: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,056.98 ft (322.168 m) above mean sea level. Sept. 4, 1878, to Dec. 31, 1905, nonrecording gages at various locations within 1.7 mi (2.7 km) of present site and at various datums. Jan. 1, 1906, to Feb. 14, 1935, nonrecording gage, and Feb. 15, 1935, to Sept. 30, 1969, water-stage recorder at present site at datum 19.90 ft (6.066 m) higher, and Oct. 1, 1969, to Sept. 30, 1970, at datum 20.00 ft (6.096 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Flow partly regulated by upstream main-stem reservoirs. National Weather Service gage height telemeter at station. Records of chemical and biological analyses for the current year are published in WDR IA-77.

AVERAGE DISCHARGE.--80 years, 31,970 ft³/s (905.3 m³/s), 23,160,000 acre-ft/yr (28.6 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 441,000 ft³/s (12,500 m³/s) Apr. 14, 1952, gage height, 24.28 ft (7.401 m), datum then in use; minimum, 2,500 ft³/s (70.8 m³/s) Dec. 29, 1941; minimum gage height, 11.6 ft (3.54 m), Jan. 29, 1977, from graph based on gage-heights furnished by Iowa Public Power 14.0 miles downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 40,100 ft³/s (1,140 m³/s) Oct. 2, gage height, 20.73 ft (6.319 m); minimum daily discharge, 9,000 ft³/s (255 m³/s) Jan. 29; minimum gage height, 11.6 ft (3.54 m), Jan. 29, from graph based on gage-heights furnished by Iowa Public Power 14.0 miles downstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38900	37300	35600	19300	14000	16300	33600	33000	30800	32000	37000	32000
2	38900	37600	38900	19300	17000	16000	35900	33000	30800	33300	37800	31600
3	38600	37600	37800	19500	18000	16000	32000	33300	31000	33600	37300	32600
4	38300	37000	36200	20000	18000	16500	31000	33300	31000	33000	37000	32000
5	38100	36200	31800	19700	17600	15900	31000	33000	30800	33300	37600	31600
6	37600	36200	28000	19900	18400	15900	29800	32300	30800	33000	35900	31300
7	37000	36700	26000	19500	18500	15900	30000	31600	30600	34000	34300	31300
8	36700	37300	23500	19700	18500	16000	31000	32000	31000	34600	34800	31000
9	36400	37300	21600	20000	19700	16900	32300	32300	31800	34000	36700	30800
10	35600	37300	21900	20100	20200	16500	31000	31000	33000	33000	34000	30800
11	35600	37300	20200	20100	20500	17700	32600	31300	33000	34600	31600	30800
12	36400	36700	21900	20100	21100	17900	32600	31600	34300	34300	32300	31800
13	36200	36400	21100	20400	20700	17500	32300	31800	35100	33300	32300	32300
14	36200	36200	21200	20100	19500	18500	32600	33000	33300	33600	33000	30300
15	35600	36200	21200	20300	15500	20300	30000	33000	33000	32000	33600	31000
16	35600	35900	21400	20500	15800	21000	31300	32000	34000	33300	34300	32800
17	35900	36400	21600	20500	16200	20500	31800	33000	34800	33600	33300	32000
18	36200	36400	21500	20500	16900	21200	30800	33300	34300	33600	30600	32000
19	36400	36400	21600	20500	16700	24600	31300	33800	32300	33300	33000	32800
20	35900	36700	20400	20500	16500	28000	31300	34000	30600	34300	34600	32000
21	36200	36400	19700	20500	17300	31600	31800	33800	31300	36400	34300	32600
22	36200	36400	22000	20500	17800	32000	30600	33800	32800	34800	34800	33000
23	36400	36400	21700	20500	16900	30600	30600	33300	35600	32600	34300	33000
24	37000	36400	20500	19000	16600	32600	29800	31300	32600	33000	33800	34300
25	36400	36700	21000	15700	16300	34000	31000	32000	30000	33000	33300	34000
26	36700	37000	21200	13600	16300	31800	32000	32300	31000	33300	33000	33600
27	37000	36700	21200	13000	16300	32300	31000	34300	31000	33000	31000	33600
28	36400	35900	21100	12000	16300	32300	31600	33300	32600	33000	30800	33000
29	36400	35400	20400	9000	---	33300	32000	31800	33000	35100	31000	33800
30	36700	34600	20200	11000	---	32300	32000	31300	32800	36200	31800	33300
31	37300	---	19700	13000	---	29000	---	31600	---	35900	33600	---
TOTAL	1138800	1097200	743300	568700	493600	722500	949800	1012000	969800	1049200	1053500	968600
MEAN	36740	36570	23980	18350	17630	23310	31660	32650	32330	33850	33980	32290
MAX	38900	37600	38900	20500	21100	34000	35900	34300	35600	36400	37800	34300
MIN	35600	34600	19700	9000	14000	15900	29800	31000	30000	32000	30600	30300
AC-FT	2259000	2176000	1474000	1128000	979000	1433000	1884000	2007000	1924000	2081000	2090000	1921000

CAL YR 1976 TOTAL 12692000 MEAN 34680 MAX 41100 MIN 12000 AC-FT 25170000
WTR YR 1977 TOTAL 10766900 MEAN 29500 MAX 38900 MIN 9000 AC-FT 21360000

06601000 OMAHA CREEK AT HOMER, NE

LOCATION.--Lat 42°19'29", long 96°29'45", in SW1/4SE1/4 sec.11, T.27 N., R.8 E., Dakota County, Hydrologic Unit 10230001, on left bank 80 ft (24 m) downstream from bridge on main street of Homer.

DRAINAGE AREA.--168 mi² (435 km²).

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-72: Drainage area. WDR NE-75-1: 1971-73.

GAGE.--Water-stage recorder. Datum of gage is 1,082.45 ft (329.931 m) above mean sea level. Prior to Aug. 6, 1952, at bridge 0.5 mi (0.8 km) downstream at datum 6.83 ft (2.082 m) lower. Aug. 6, 1952, to Nov. 3, 1966, at site 80 ft (24 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--32 years, 34.4 ft³/s (0.974 m³/s), 24,920 acre-ft/yr (30.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,100 ft³/s (513 m³/s) Feb. 19, 1971, gage height, 26.47 ft (8.068 m), from floodmark, from rating curve extended above 3,700 ft³/s (105 m³/s) on basis of slope-area measurements at gage heights 16.38 ft (4.993 m) and 23.62 ft (7.199 m); minimum daily, 0.1 ft³/s (0.003 m³/s) Sept. 16, 18, 19, 1948, Sept. 9, 13, 14, 1955, Oct. 7, 8, 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood known occurred June 4, 1940, stage, about 32.5 ft (9.91 m), present site and datum, discharge estimated as 51,000 ft³/s (1,440 m³/s) at site 2.5 miles upstream from present site.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 876 ft³/s (24.8 m³/s) Aug. 9, gage height, 6.49 ft (1.978 m), no peak above base of 1,000 ft³/s (28.3 m³/s); minimum daily, 1.4 ft³/s (0.040 m³/s) Dec. 1,2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	3.8	1.4	2.0	3.0	11	8.2	5.3	6.1	38	2.1	5.0
2	2.2	3.8	1.4	2.8	4.0	14	35	5.3	4.9	10	2.6	2.8
3	2.0	3.8	1.5	2.7	4.6	20	33	6.2	4.1	7.4	1.9	47
4	2.0	3.6	1.7	2.5	5.2	16	17	9.0	4.1	6.6	2.5	22
5	2.0	3.7	1.8	2.4	4.6	17	11	10	3.7	5.6	3.0	4.5
6	2.0	3.6	1.8	2.0	4.0	19	8.9	7.4	3.1	43	2.0	2.9
7	1.8	4.1	1.7	2.6	3.5	22	7.5	5.5	2.8	140	2.3	2.6
8	2.0	3.8	1.6	2.0	4.5	27	6.8	4.7	2.6	10	2.6	2.8
9	2.2	3.9	2.4	1.8	7.6	30	6.4	4.1	2.6	5.4	133	5.9
10	2.6	4.4	2.3	1.9	9.0	35	6.0	3.8	2.3	3.6	47	7.6
11	2.6	3.8	2.2	2.0	6.6	45	6.0	3.7	2.2	4.7	4.2	3.5
12	2.6	3.2	2.6	2.3	6.0	60	8.2	3.1	2.8	5.0	5.1	32
13	2.8	3.8	2.9	2.5	7.6	44	80	3.2	5.1	3.8	3.5	47
14	2.6	3.8	3.1	3.0	6.8	38	22	3.0	5.5	2.9	2.8	4.3
15	2.9	3.2	3.2	2.4	6.0	34	13	2.9	4.1	2.5	2.4	2.6
16	4.0	3.2	3.3	1.8	7.6	36	9.4	2.6	52	2.3	56	2.0
17	2.2	3.5	3.4	2.0	10	25	8.5	2.6	91	2.2	9.3	3.5
18	2.6	5.0	3.3	2.3	9.0	19	8.0	2.4	29	1.7	3.7	3.6
19	3.5	6.3	3.3	2.9	6.0	15	7.7	2.2	11	1.7	2.7	2.3
20	3.0	5.0	3.0	3.0	10	16	9.1	2.3	7.5	1.7	2.6	2.0
21	3.6	4.4	2.5	2.9	15	15	14	10	4.5	126	2.8	1.8
22	3.5	4.1	2.8	3.1	14	13	11	27	8.1	20	4.6	2.1
23	3.5	3.8	2.8	3.5	13	13	7.7	13	16	5.4	3.0	4.7
24	3.3	4.0	2.8	3.3	13	14	6.5	7.0	16	8.4	2.7	7.3
25	3.5	4.6	2.8	3.1	14	15	6.1	4.0	9.1	12	2.6	3.0
26	3.5	4.6	2.7	2.6	14	15	5.7	3.6	7.3	5.0	2.4	2.4
27	3.6	4.2	3.0	3.2	13	14	5.7	396	6.3	3.1	3.2	2.1
28	3.7	2.6	3.0	2.0	12	18	5.3	80	29	2.6	2.0	4.6
29	3.3	2.4	2.5	2.5	---	20	5.3	15	26	2.6	1.8	7.7
30	3.4	1.7	2.0	2.4	---	19	5.3	9.2	41	2.6	1.8	4.4
31	3.8	---	1.6	2.4	---	10	---	7.3	---	2.6	3.5	---
TOTAL	89.1	113.9	76.4	78.2	239.6	719	384.8	679.4	428.4	504.4	325.9	295.6
MEAN	2.87	3.80	2.46	2.52	8.56	23.2	12.8	21.9	14.3	16.3	10.5	9.85
MAX	4.0	6.3	3.4	3.5	15	60	80	396	91	140	133	47
MIN	1.8	1.7	1.4	1.8	3.0	10	5.3	2.2	2.2	1.7	1.8	1.8
AC-FT	177	226	152	155	475	1430	763	1350	850	1000	646	586

CAL YR 1976 TOTAL 3553.7 MEAN 9.71 MAX 100 MIN 1.2 AC-FT 7050
WTR YR 1977 TOTAL 3834.7 MEAN 10.5 MAX 396 MIN 1.4 AC-FT 7600

06600600 TEKAMAH CREEK AT TEKAMAH, NE

LOCATION.--Lat 41°46'30", long 96°13'10", in SE1/4 sec.19, T.21 N., R.11 E., Burt County, Hydrologic Unit 10230001, on left bank 30 ft (9 m) upstream from bridge 1 block east of U.S. Highway 73 in Tekamah.

DRAINAGE AREA.--23.0 mi² (59.6 km²).

PERIOD OF RECORD.--July 1949 to current year.

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder and crest-stage indicator. Datum of gage is 1,032.26 ft (314.633 m) above mean sea level. Prior to Sept 15, 1949, nonrecording gage at site 30 ft (9 m) downstream at present datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--28 years, 6.35 ft³/s (0.180 m³/s), 4,600 acre-ft/yr (5.67 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,180 ft³/s (175 m³/s) June 5, 1963, gage height, 16.62 ft (5.066 m); no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s (11.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 16	0200	885	25.1	8.01	2.441	Aug. 31	0615	*2170	61.5	10.78	3.286
Aug. 21	0230	889	25.2	8.02	2.444						

Minimum daily discharge, 0.01 ft³/s (0.0003 m³/s) Jan. 16, Aug. 2-4,14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.32	.50	.30	.20	.80	.51	.65	.92	.33	.03	9.0
2	.12	.32	.60	.30	.30	1.2	21	.80	.72	.18	.01	6.9
3	.12	.36	.73	.40	.50	1.5	2.9	1.9	.57	.11	.01	11
4	.30	.37	.68	.40	.50	1.4	2.4	2.5	.49	.08	.01	19
5	.17	.50	.72	.40	.40	1.3	1.9	1.5	.39	.04	15	4.4
6	.17	.59	.60	.30	.30	1.4	1.6	1.5	.31	.03	.92	3.2
7	.17	.58	.20	.30	.30	1.6	1.4	1.1	.21	.03	.09	2.3
8	.16	.66	.30	.30	.40	1.9	1.3	7.1	.20	.03	.04	2.2
9	.22	.76	.60	.20	.70	4.0	1.2	2.5	.18	.03	59	5.9
10	.22	.76	.60	.20	.80	8.8	1.4	1.1	.18	.04	1.4	1.4
11	.28	.71	.63	.30	.80	14	1.2	.80	.16	.23	.22	.92
12	.29	.56	.30	.30	.90	16	1.5	.66	.21	.04	.11	1.1
13	.42	.57	.30	.30	.70	3.1	3.1	.60	.40	.04	.08	1.2
14	.32	.67	.40	.40	.60	2.6	2.0	.66	.36	.42	.01	.89
15	.29	.75	.50	.20	.60	2.0	1.7	.68	.29	7.5	9.8	.67
16	.29	1.0	.50	.01	.50	1.4	1.4	.65	.60	.56	120	.58
17	.29	1.3	.60	.04	.60	1.3	1.3	.62	6.9	.33	1.4	.58
18	.29	1.5	.80	.06	.70	1.1	1.3	.67	2.3	.09	.70	.57
19	.33	1.1	.70	.10	.70	.65	4.1	.60	.66	.03	.56	.51
20	.39	.94	.56	.10	.60	.76	1.8	.60	.37	.02	1.3	.42
21	.37	.74	.40	.10	.90	.61	1.5	6.3	.35	7.9	121	.42
22	.32	.70	.50	.10	1.1	.46	1.2	7.0	.69	.18	2.0	.42
23	.27	.68	.40	.20	1.1	.42	1.3	1.3	.46	.03	1.0	.90
24	.29	.72	.60	.10	.90	.51	.92	.86	.25	51	.75	2.2
25	.27	.96	.60	.07	1.0	.61	.83	.66	.20	1.8	.55	.44
26	.29	.83	.60	.10	1.0	.65	.87	.97	.17	.20	.55	.46
27	.27	.50	1.0	.20	1.0	.58	.79	16	.09	.12	.39	.44
28	.25	.30	1.0	.04	1.0	3.2	.86	2.8	9.6	.08	.29	.39
29	.27	.29	.60	.08	---	8.8	.80	1.4	1.0	.09	.29	.37
30	.25	.30	.40	.10	---	1.0	.68	2.3	.71	.06	21	.56
31	.36	---	.20	.08	---	.58	---	2.1	---	.02	440	---
TOTAL	8.19	20.11	16.26	6.08	18.90	84.21	64.76	65.92	29.52	71.70	798.49	79.62
MEAN	.26	.67	.52	.20	.68	2.72	2.16	2.13	.98	2.31	25.8	2.65
MAX	.42	1.5	1.0	.40	1.1	16	21	16	9.6	51	440	19
MIN	.12	.29	.20	.01	.20	.42	.51	.62	.09	.02	.01	.37
AC-FT	16	40	32	12	37	167	128	131	59	142	1580	158

CAL YR 1976 TOTAL 562.13 MEAN 1.54 MAX 26 MIN .02 AC-FT 1110
WTR YR 1977 TOTAL 1263.76 MEAN 3.46 MAX 440 MIN .01 AC-FT 2510

06610000 MISSOURI RIVER AT OMAHA, NE

LOCATION.--Lat 41°15'32", long 95°55'20", in SE1/4NW1/4 sec.23, T.15 N., R.13 E., Douglas County, Hydrologic Unit 10230006, on right bank on left side of concrete floodwall, at foot of Douglas Street, 275 ft (84 m) downstream from Interstate 480 Highway bridge in Omaha, and at mi 615.9 (991.0 km).

DRAINAGE AREA.--322,800 mi² (836,100 km²), approximately.

PERIOD OF RECORD.--September 1928 to current year. April 1872 to December 1899 (gage heights only) in reports of the Missouri River Commission and since January 1875 (gage heights only) in reports of the U.S. Weather Bureau.

REVISED RECORDS.--WSP 761: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 958.24 ft (292.072 m) above mean sea level. See WSP 1730 for history of changes prior to Sept. 30, 1936.

REMARKS.--Records good. Flow partly regulated by upstream main-stem reservoirs. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--49 years, 29,350 ft³/s (831.2 m³/s), 21,260,000 acre-ft/yr (26.2 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 396,000 ft³/s (11,200 m³/s) Apr. 18, 1952, gage height, 30.20 ft (9.205 m); minimum, about 2,200 ft³/s (62.3 m³/s) Jan. 6, 1937; minimum gage height observed, -2.77 ft (-0.844 m) Jan. 10, 1957, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 51,400 ft³/s (1,460 m³/s) Aug. 31, gage height, 10.37 ft (3.161 m); minimum daily, 11,500 ft³/s (326 m³/s) Jan. 31; minimum gage height observed, 2.62 ft (0.799 m) Mar. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39600	37100	34400	20500	13000	16700	33200	33100	31900	33300	36900	41500
2	39500	37400	36300	21200	15000	17200	35300	33600	31700	32600	37700	35200
3	40100	37300	38400	21500	17000	17400	36800	33500	31500	32800	38200	32700
4	40000	37600	38300	21900	18000	17600	34600	33000	31300	33400	37800	37700
5	40000	37400	34500	22500	18000	18400	33000	33400	31400	33200	37800	35000
6	39600	36800	30200	22400	17500	18300	32300	33500	31400	33100	38600	32100
7	39300	36900	27000	22000	18000	17500	32000	32800	30900	34000	37500	31600
8	37700	36700	24400	21300	18500	17700	31000	32800	30700	35800	35700	31500
9	36800	37900	22800	19800	19000	17200	31700	32100	30400	36300	36400	31600
10	36200	38200	22000	20500	19500	17700	32300	32300	31400	35900	43500	32300
11	36100	38600	22000	20900	20000	18900	31300	32100	32700	34700	39000	31800
12	36600	38100	21600	21200	20500	18300	32300	31600	34100	34300	32000	31800
13	37200	37600	21600	21300	21000	21700	33100	31800	34600	34500	32200	32600
14	37300	37200	22200	20300	21000	22300	33000	31800	35600	33100	32300	33900
15	37700	37100	21600	19800	20000	20800	32800	33000	35100	34100	33800	31600
16	37100	36500	21800	21600	18000	22300	31200	33600	34000	34100	37700	31000
17	36900	36800	21800	21400	16700	25000	31300	33100	34600	35000	37200	33000
18	36300	37300	22000	20900	16400	26200	32100	33300	35800	34900	35300	34400
19	36900	37500	22200	20700	17200	26200	32100	33700	35300	33900	31600	34100
20	37100	37900	22500	21000	17900	29200	32900	33600	33600	33500	32300	33300
21	37100	38300	22100	21000	17500	35400	33200	34900	32000	37600	36000	32600
22	37100	37400	20500	21000	17600	34300	33300	35000	32300	42700	35100	32800
23	37100	37000	21000	21000	18800	30600	32500	33900	33300	37400	35000	34200
24	37300	36700	23100	21000	19100	30600	31400	34000	41600	34800	34800	33600
25	37700	37100	21500	20000	18300	34300	31000	31700	39400	37700	34000	34100
26	37300	38000	21500	16000	17700	35000	31700	31800	31700	36900	33600	34100
27	37400	38100	22000	15000	17200	33900	33300	33000	32300	34400	33400	33700
28	38000	38000	21500	14000	16700	35000	32700	36100	32800	34400	32400	33400
29	36700	36500	21800	13000	---	35800	32200	36600	32300	34600	31300	33300
30	36600	35300	21200	12000	---	36600	32500	33700	33300	35600	32100	34300
31	36900	---	20800	11500	---	34600	---	31900	---	37000	41700	---
TOTAL	1167200	1120300	764600	609200	505100	782700	978100	1030300	999000	1085600	1102900	1004800
MEAN	37650	37340	24660	19620	18040	25250	32600	33240	33300	35020	35580	33490
MAX	40100	38600	38400	22500	21000	36600	36800	36600	41600	42700	43500	41500
MIN	36100	35300	20500	11500	13000	16700	31000	31600	30400	32600	31300	31000
AC-FT	2315000	2222000	1517000	1206000	1002000	1552000	1940000	2044000	1982000	2153000	2188000	1993000

CAL YR 1976 TOTAL 13024900 MEAN 35590 MAX 47000 MIN 13200 AC-FT 25830000
WTR YR 1977 TOTAL 11148800 MEAN 30540 MAX 43500 MIN 11500 AC-FT 22110000

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE

LOCATION.--Lat 41°59'25", long 104°02'57", in SW¼NE¼SE¼ sec.4, T.23 N., R.58 W., Scottsbluff County, NE, Hydrologic Unit 10180009, on right bank 650 ft (198 m) upstream from bridge on NE State Highway 86, 700 ft (213 m) downstream from Wyoming-Nebraska State line, and 0.5 mi (0.8 km) south of Henry, NE.

DRAINAGE AREA.--22,218 mi² (57,545 km²), of which 1,929 mi² (4,996 km²), is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1929 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,020 ft (1,225 m), from topographic map. Prior to Nov. 6, 1929, nonrecording gage and Nov. 6, 1929, to Feb. 22, 1972, water-stage recorder at sites 0.5 mi (0.8 km) upstream at different datums.

REMARKS.--Records good except those prior to June, which are poor. Natural flow of stream affected by storage reservoirs, transbasin diversions, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Gering-Mitchell Canal diverts from right bank 0.8 mi (1.3 km) upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 17,900 ft³/s (507 m³/s) June 2, 1929, gage height 7.04 ft (2.146 m), site and datum then in use; minimum daily, 13 ft³/s (0.37 m³/s) May 12, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,140 ft³/s (60.6 m³/s) June 21, gage height, 3.85 ft (1.173 m); minimum daily, 177 ft³/s (5.01 m³/s) Apr. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	634	401	320	275	248	222	197	248	659	1220	774	760
2	616	396	310	275	248	222	197	299	580	1270	760	774
3	580	387	305	284	252	222	197	299	411	1310	774	760
4	557	383	310	288	248	218	200	315	348	1340	892	795
5	545	376	300	275	248	218	197	387	284	1390	971	781
6	534	369	280	280	248	222	197	411	269	1450	1080	725
7	528	356	295	260	245	222	200	420	225	1410	1070	653
8	523	356	311	265	245	218	194	596	235	1400	1060	586
9	507	352	311	240	245	215	185	1030	248	1520	1020	586
10	507	348	315	245	241	215	177	1000	218	1420	963	604
11	496	344	311	255	245	203	188	672	274	1380	955	616
12	491	339	311	270	241	200	200	415	659	1360	892	622
13	485	335	315	265	241	212	194	365	672	1360	900	616
14	480	339	315	266	241	222	191	348	1000	1350	915	598
15	491	335	311	245	238	215	197	311	598	1360	915	598
16	580	331	307	235	235	215	225	280	475	1330	931	598
17	705	335	315	248	235	218	218	266	387	1280	931	622
18	831	335	311	248	235	215	212	315	374	1240	963	653
19	846	327	311	252	228	215	225	444	430	1240	979	653
20	809	323	307	252	228	215	266	534	517	1390	931	647
21	647	303	303	255	231	212	276	562	1620	1470	869	622
22	580	295	299	255	231	212	284	574	1390	1390	846	586
23	534	295	299	255	228	209	295	574	839	1440	795	598
24	496	299	299	252	225	209	303	562	819	1370	892	586
25	470	295	299	245	225	209	311	557	528	1370	915	557
26	454	288	299	248	222	206	288	592	480	1350	846	574
27	444	275	299	252	222	203	315	640	568	1260	809	501
28	435	260	303	252	222	206	311	659	1180	1150	781	439
29	420	290	295	252	---	200	291	666	1300	1060	753	387
30	415	320	285	248	---	197	255	640	1240	907	753	365
31	406	---	270	248	---	200	---	640	---	809	746	---
TOTAL	17046	9987	9421	8005	6641	6587	6986	15611	18827	40596	27681	18462
MEAN	550	333	304	258	237	212	233	504	628	1310	893	615
MAX	846	401	320	288	252	222	315	1030	1620	1520	1080	795
MIN	406	260	270	235	222	197	177	248	218	809	746	365
AC-FT	33810	19810	18690	15880	13170	13070	13860	30960	37340	80520	54910	36620

CAL YR 1976 TOTAL 210568 MEAN 575 MAX 1700 MIN 211 AC-FT 417700
WTR YR 1977 TOTAL 185850 MEAN 509 MAX 1620 MIN 177 AC-FT 368600

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

WATER-QUALITY RECORDS

LOCATION.--Daily water temperatures and samples for specific conductance collected at Farmers Canal diversion dam 1.0 mi (1.6 km) downstream from discharge station.

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM .7UM-MF (COL./100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV									
04...	0830	387	1000	6.0	1	10.2	50	290	36
DEC									
07...	0830	A295	950	3.5	1	10.2	K22	310	56
JAN									
07...	0900	295	900	1.0	25	10.6	46	280	26
FEB									
03...	1400	255	1080	6.0	1	10.2	K15	280	26
MAR									
02...	0830	222	950	2.0	2	9.9	63	290	36
29...	0900	200	1000	2.5	7	10.1	63	290	27
APR									
27...	0830	238	940	14.0	20	7.4	K93	290	69
MAY									
24...	1715	551	810	21.0	15	8.3	54	260	96
JUL									
06...	0830	1460	710	21.0	25	7.3	B120	230	74
AUG									
01...	1630	760	770	24.0	40	7.8	110	270	76
30...	0730	753	710	16.0	10	7.8	56	250	61
SEP									
28...	0830	430	740	13.0	5	8.9	K350	290	77

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
NOV									
04...	81	21	90	2.3	6.7	310	0	254	220
DEC									
07...	86	22	100	2.5	7.4	310	0	254	240
JAN									
07...	77	22	98	2.5	7.0	310	0	254	200
FEB									
03...	78	21	97	2.5	8.6	310	0	254	220
MAR									
02...	81	22	100	2.5	7.2	310	0	254	220
29...	86	17	96	2.5	7.4	320	0	262	210
APR									
27...	75	24	80	2.1	5.8	270	0	221	200
MAY									
24...	68	21	68	1.8	5.8	200	0	164	210
JUL									
06...	56	21	61	1.8	6.2	190	0	156	170
AUG									
01...	69	25	70	1.8	6.0	230	3	194	190
30...	65	22	73	2.0	5.9	230	0	189	170
SEP									
28...	77	23	83	2.1	7.0	260	0	213	210

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
NOV								
04...	20	.5	26	622	.85	650	2.1	.01
DEC								
07...	20	.6	19	653	.89	520	2.3	.02
JAN								
07...	22	.6	29	618	.84	492	2.0	.03
FEB								
03...	22	.6	29	637	.87	439	1.6	.05
MAR								
02...	21	.7	25	644	.88	386	2.2	.04
29...	21	.7	25	627	.85	339	1.8	.01
APR								
27...	18	.6	20	561	.76	361	.56	.04
MAY								
24...	16	.6	11	504	.69	750	.52	.09
JUL								
06...	16	.5	7.5	440	.60	1730	.52	.11
AUG								
01...	26	.6	17	522	.71	1070	.23	.17
30...	26	.5	19	492	.67	1000	.14	.04
SEP								
28...	21	.4	20	570	.78	662	1.6	.00

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM
OCT										
12...	1020	12.5	496	68	91	49	--	--	--	--
NOV										
09...	1000	9.0	352	34	32	45	--	--	--	--
DEC										
08...	1045	4.5	311	59	50	30	--	--	--	--
JAN										
03...	1310	1.0	284	48	37	49	--	--	--	--
FEB										
01...	1400	5.0	248	52	35	--	--	--	--	--
MAR										
01...	1415	6.5	222	65	39	--	--	--	--	--
APR										
06...	1040	11.0	197	28	15	--	--	--	--	--
MAY										
05...	1045	13.5	392	142	150	--	--	--	--	--
JUN										
07...	1900	23.0	177	74	35	--	--	--	--	--
21...	1800	22.0	2120	2270	13000	--	64	87	97	100
JUL										
10...	1915	22.0	1380	153	570	--	--	--	--	--
AUG										
26...	1800	20.0	802	81	175	--	--	--	--	--
SEP										
27...	1540	16.5	540	31	45	--	--	--	--	--

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	NUMBER OF SAM-PLING POINTS	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
NOV												
09...	1000	9.0	352	6	0	0	4	44	72	88	98	100
JUN												
07...	1900	23.0	177	4	0	0	3	34	56	81	96	100

06677500 HORSE CREEK NEAR LYMAN, NE

LOCATION.--Lat 41°56'21", long 103°59'13", in SE1/4NE1/4 sec.25, T.23 N., R.58 W., Scotts Bluff County, Hydrologic Unit 10180012, on right bank 10 ft (3 m) upstream from county highway bridge, 1.8 mi (2.9 km) upstream from mouth, 2.2 mi (3.5 km) downstream from Owl Creek, and 3.2 mi (5.1 km) northeast of Lyman.

DRAINAGE AREA.--1,570 mi² (4,070 km²), approximately, of which about 40 mi² (100 km²) is noncontributing.

PERIOD OF RECORD.--February 1931 to current year.

REVISED RECORDS.--WSP 926: 1940(M). WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,010 ft (1,222 m), from topographic map. See WSP 2118 for history of changes prior to Apr. 17, 1967.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--46 years, 67.0 ft³/s (1.897 m³/s), 48,540 acre-ft/yr (59.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,110 ft³/s (145 m³/s) June 6, 1967, gage height, 10.82 ft (3.298 m), from rating curve extended above 1,900 ft³/s (53.8 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.4 ft³/s (0.011 m³/s) Feb. 1, 2, 1949.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 424 ft³/s (12.0 m³/s) June 22, gage height, 4.16 ft (1.268 m); maximum gage height, 4.20 ft (1.280 m), June 14; minimum daily discharge, 10 ft³/s (0.28 m³/s) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244	55	36	20	20	22	22	19	370	116	135	170
2	152	53	36	18	20	20	20	20	369	102	128	163
3	122	52	38	16	20	20	20	24	362	95	139	167
4	106	51	37	14	20	22	20	20	353	95	202	175
5	98	50	36	18	20	24	18	17	349	80	160	166
6	96	49	35	20	20	24	18	17	346	66	164	152
7	92	48	37	28	22	26	17	24	334	64	166	151
8	86	47	36	24	22	27	17	49	303	60	146	146
9	82	47	37	20	22	24	17	164	269	56	119	152
10	80	47	36	14	22	24	16	275	170	51	107	147
11	76	46	34	10	22	20	22	288	141	46	104	150
12	74	45	35	14	22	20	27	284	290	44	111	149
13	72	44	33	16	22	24	21	250	346	43	108	146
14	69	44	33	18	22	33	18	200	388	44	106	142
15	67	44	32	18	22	25	35	200	383	44	100	138
16	66	45	32	18	27	24	72	150	326	38	110	128
17	65	45	32	20	28	24	38	141	249	38	135	129
18	62	46	32	24	27	23	32	111	175	38	130	125
19	63	45	29	26	26	21	32	87	220	40	134	122
20	63	44	26	20	24	22	29	88	251	44	128	125
21	62	43	28	20	26	19	28	104	247	62	141	159
22	61	43	28	20	26	19	26	136	372	74	135	179
23	60	44	28	18	25	19	24	163	200	79	128	194
24	59	45	31	14	22	19	23	169	144	184	129	302
25	60	45	30	16	22	19	22	193	141	146	133	352
26	59	40	31	18	22	18	22	220	138	149	133	323
27	58	40	33	18	22	18	20	204	120	145	148	285
28	57	35	31	18	22	23	20	156	104	161	161	216
29	56	35	30	20	---	21	20	298	145	130	166	170
30	55	36	28	20	---	18	20	339	132	121	154	132
31	55	---	26	20	---	21	---	351	---	122	162	---
TOTAL	2477	1353	1006	578	637	683	736	4761	7737	2577	4222	5251
MEAN	79.9	45.1	32.5	18.6	22.8	22.0	24.5	154	258	83.1	136	175
MAX	244	55	38	28	28	33	72	351	388	184	202	352
MIN	55	35	26	10	20	18	16	17	104	38	100	122
AC-FT	4910	2680	2000	1150	1260	1350	1460	9440	15350	5110	8370	10420

CAL YR 1976 TOTAL 32323.0 MEAN 88.3 MAX 346 MIN 8.0 AC-FT 64110
WTR YR 1977 TOTAL 32018.0 MEAN 87.7 MAX 388 MIN 10 AC-FT 63510

06678000 SHEEP CREEK NEAR MORRILL, NE

LOCATION.--Lat 41°57'50", long 103°56'20", in NW1/4SW1/4 sec.16, T.23 N., R.57 W., Scotts Bluff County, Hydrologic Unit 10180009, on right bank 40 ft (12 m) upstream from Burlington Northern Inc. bridge, 50 ft (15 m) downstream from bridge on U.S. Highway 26, 1 mi (2 km) west of Morrill, and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--362 mi^2 (938 km^2), of which about 25 mi^2 (65 km^2) is noncontributing.

PERIOD OF RECORD.--October 1931 to current year.

REVISED RECORDS.--WDR NE-67: Drainage area. WSP 2118: 1936(M), 1946(M).

GAGE.--Water-stage recorder. Datum of gage is 3,995.04 ft (1,217.608 m) above mean sea level. Prior to Apr. 14, 1940, nonrecording gage at site 20 ft (6 m) upstream at same datum.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--46 years, 55.1 ft^3/s (1.560 m^3/s), 39,920 acre-ft/yr (49.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 413 ft^3/s (11.7 m^3/s) June 27, 1955, gage height, 6.52 ft (1.987 m), from floodmark; maximum gage height, 6.75 ft (2.057 m) Aug. 2, 1932, from floodmark, due to break in Interstate Canal (discharge not determined); minimum daily discharge, 0.1 ft^3/s (0.003 m^3/s) Dec. 16, 23, 1956, Jan. 18, Mar. 12, 1957, result of diversion for construction upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 260 ft^3/s (7.36 m^3/s) June 21, gage height, 4.07 ft (1.241 m); minimum daily, 1.0 ft^3/s (0.028 m^3/s) May 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	118	103	94	87	76	74	73	3.0	3.3	5.7	5.4
2	129	118	104	94	87	79	74	74	2.8	3.3	5.7	6.0
3	128	118	104	93	83	78	74	73	2.4	3.9	5.7	6.0
4	129	118	103	94	83	78	72	26	2.4	3.9	5.7	6.0
5	136	118	102	94	80	78	70	1.0	2.8	3.9	6.3	6.0
6	134	118	102	94	80	78	74	1.4	3.3	4.2	6.3	6.0
7	133	117	102	93	81	77	75	1.6	3.3	3.9	6.3	6.0
8	131	117	102	93	81	76	78	1.6	3.0	4.2	6.3	6.0
9	130	116	102	94	81	78	80	1.4	3.0	4.2	6.3	6.0
10	130	116	102	94	81	78	79	1.4	2.6	4.2	6.3	5.7
11	129	114	102	93	80	79	87	1.4	2.4	3.6	6.3	5.7
12	128	112	102	93	81	78	90	1.4	2.6	3.6	6.3	5.7
13	126	110	102	93	81	77	86	1.4	2.6	3.9	6.3	5.7
14	125	110	102	93	80	77	81	1.4	2.6	3.9	6.6	5.7
15	123	108	101	93	80	75	85	1.2	2.4	4.5	6.6	5.7
16	123	109	101	93	79	75	84	1.2	2.4	4.5	6.0	5.7
17	125	109	101	93	79	77	81	1.4	2.2	4.2	7.5	5.7
18	124	110	101	93	80	77	80	2.4	2.2	4.2	4.8	5.7
19	124	109	100	93	79	77	81	2.8	2.2	6.3	5.1	5.7
20	124	108	100	93	81	76	78	2.8	2.2	5.7	6.3	5.7
21	123	106	100	92	81	77	77	2.6	94	6.0	6.3	5.4
22	123	104	100	93	81	78	76	2.6	63	6.0	6.0	5.4
23	123	104	99	92	81	78	75	2.6	3.3	6.0	6.0	5.4
24	122	105	98	90	81	78	77	2.8	3.3	6.0	6.6	5.1
25	122	106	98	90	80	78	75	3.0	3.3	6.0	6.0	86
26	121	106	98	90	78	78	74	3.3	3.3	6.0	6.0	125
27	119	105	98	90	78	78	74	3.3	3.3	6.0	5.7	122
28	119	105	97	87	78	78	72	3.3	3.3	6.0	5.4	123
29	119	105	95	88	---	74	74	3.3	3.6	6.0	5.4	123
30	118	105	94	87	---	74	74	3.3	3.3	6.0	5.4	123
31	118	---	93	87	---	74	---	3.3	---	6.0	5.4	---
TOTAL	3888	3324	3108	2853	2262	2389	2331	305.2	236.1	149.4	186.6	839.4
MEAN	125	111	100	92.0	80.8	77.1	77.7	9.85	7.87	4.82	6.02	28.0
MAX	136	118	104	94	87	79	90	74	94	6.3	7.5	125
MIN	118	104	93	87	78	74	70	1.0	2.2	3.3	4.8	5.1
AC-FT	7710	6590	6160	5660	4490	4740	4620	605	468	296	370	1660

CAL YR 1976 TOTAL 23104.0 MEAN 63.1 MAX 141 MIN 3.0 AC-FT 45830
WTR YR 1977 TOTAL 21871.7 MEAN 59.9 MAX 136 MIN 1.0 AC-FT 43380

06679000 DRY SPOTTEDTAIL CREEK AT MITCHELL, NE

LOCATION.--Lat 41°56'45", long 103°49'35", at southeast corner of sec.20, T.23 N., R.56 W., Scotts Bluff County, Hydrologic Unit 10180009, on right bank 5 ft (2 m) upstream from bridge on county road, 0.5 mi (0.8 km) west of Mitchell, and 0.8 mi (1.3 km) upstream from mouth.

DRAINAGE AREA.--77.2 mi² (199.9 km²).

PERIOD OF RECORD.--October 1948 to current year.

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,943.75 ft (1,202.055 m) above mean sea level. Prior to Oct. 1, 1958, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--29 years, 33.9 ft³/s (0.960 m³/s), 24,560 acre-ft/yr (30.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,010 ft³/s (56.9 m³/s) June 24, 1951, gage height, 8.55 ft (2.606 m), present datum; minimum daily, 1.6 ft³/s (0.045 m³/s) June 28, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 138 ft³/s (3.91 m³/s) Sept. 28, gage height, 2.31 ft (0.704 m); minimum daily, 13 ft³/s (0.37 m³/s) Jan. 26,31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	32	23	18	18	18	18	25	17	44	40	32
2	55	32	23	18	22	18	18	42	18	41	35	35
3	52	32	23	18	23	18	18	76	17	39	32	30
4	47	31	22	17	23	18	18	49	16	70	36	29
5	39	31	21	17	23	19	18	25	18	47	42	43
6	37	32	20	17	23	19	18	25	20	40	44	47
7	34	31	21	18	22	20	18	28	19	41	39	42
8	34	31	21	17	23	20	18	32	16	44	40	44
9	33	29	21	18	23	20	18	35	22	63	40	52
10	34	28	21	17	23	22	18	34	45	54	36	45
11	35	28	20	17	23	19	20	36	37	50	40	39
12	34	28	20	17	23	21	21	32	36	45	41	39
13	33	28	20	17	22	18	18	33	34	44	42	40
14	32	27	20	17	21	17	17	34	32	45	41	39
15	32	26	20	16	20	17	20	36	27	42	38	38
16	32	27	20	16	20	17	20	28	27	38	36	39
17	32	27	20	16	20	17	18	19	27	35	38	47
18	32	27	19	15	20	17	17	22	28	40	39	50
19	33	26	19	15	20	17	17	27	30	43	37	49
20	33	25	17	15	21	17	17	27	31	45	40	44
21	32	25	18	15	21	17	17	30	96	47	43	40
22	32	27	18	15	21	17	17	33	51	40	43	37
23	32	27	17	14	20	18	17	36	33	33	38	45
24	33	26	17	14	21	18	17	29	27	36	43	49
25	33	26	17	14	20	18	17	31	22	44	35	59
26	32	24	17	13	18	18	17	28	21	42	32	79
27	32	21	18	14	18	19	17	26	20	42	26	87
28	33	22	18	14	18	20	17	24	20	40	26	88
29	33	23	18	14	---	18	19	21	23	38	23	64
30	33	24	18	14	---	17	24	20	24	39	24	53
31	32	---	18	13	---	18	---	17	---	40	23	---
TOTAL	1119	823	605	490	590	567	544	960	854	1351	1132	1424
MEAN	36.1	27.4	19.5	15.8	21.1	18.3	18.1	31.0	28.5	43.6	36.5	47.5
MAX	69	32	23	18	23	22	24	76	96	70	44	88
MIN	32	21	17	13	18	17	17	17	16	33	23	29
AC-FT	2220	1630	1200	972	1170	1120	1080	1900	1690	2680	2250	2820

CAL YR 1976 TOTAL 13615 MEAN 37.2 MAX 130 MIN 12 AC-FT 27010
WTR YR 1977 TOTAL 10459 MEAN 28.7 MAX 96 MIN 13 AC-FT 20750

06679500 NORTH PLATTE RIVER AT MITCHELL, NE

LOCATION.--Lat 41°55'38", long 103°48'46", in NE1/4NE1/4 sec.33, T.23 N., R.56 W., Scotts Bluff County, Hydrologic Unit 10180009, near right bank of main channel on downstream side of pier of bridge on State Highway 29, 0.5 mi (0.8 km) south of Mitchell.

DRAINAGE AREA.--24,300 mi² (62,900 km²), approximately, of which about 22,300 mi² (57,800 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1901 to September 1910, May to December 1911, February 1912 to July 1913 (gage heights only), May 1916 to October 1918 (irrigation seasons only), May 1920 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,929.3 ft (1,197.65 m) above mean sea level. See WSP 1916 for history of changes prior to May 27, 1960. May 27, 1960, to Aug. 24, 1971, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,500 ft³/s (779 m³/s) June 3, 1909, gage height, 6.45 ft (1.966 m), datum then in use, from graph based on gage readings, from rating curve extended above 17,000 ft³/s (481 m³/s); minimum daily observed, 25 ft³/s (0.71 m³/s) Sept. 25-29, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,800 ft³/s (51.0 m³/s) June 22, gage height, 4.57 ft (1.393 m); minimum daily, 201 ft³/s (5.69 m³/s) Aug. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1090	740	590	525	467	449	400	485	515	324	270	273
2	996	740	595	505	472	449	396	485	500	300	234	288
3	955	745	600	515	476	440	396	500	495	296	227	284
4	930	745	605	520	476	436	396	400	481	328	292	304
5	905	745	605	495	481	445	388	207	463	312	280	344
6	895	735	600	495	481	445	384	234	454	320	340	312
7	875	720	600	505	485	445	384	262	436	308	360	296
8	855	715	585	485	485	445	388	292	418	304	348	284
9	840	705	595	472	485	449	380	724	436	336	320	292
10	845	695	585	450	485	454	376	1010	436	324	273	280
11	850	685	560	463	481	431	396	915	376	266	245	280
12	840	675	570	481	481	422	436	700	574	241	238	276
13	835	665	570	500	481	431	422	535	650	234	224	292
14	825	660	570	505	476	454	409	413	838	224	217	266
15	805	655	575	495	476	454	440	392	755	220	207	259
16	840	650	570	467	481	449	535	344	610	227	201	252
17	910	645	575	472	481	454	490	262	525	224	236	255
18	1020	645	575	476	476	449	463	238	450	217	238	284
19	1060	645	565	472	472	436	467	210	422	204	245	308
20	1060	635	555	476	467	440	495	231	472	204	255	308
21	945	620	550	472	472	436	515	248	979	368	266	344
22	870	620	550	472	476	440	530	238	1580	400	269	356
23	835	625	540	467	472	436	540	255	862	418	255	368
24	800	620	540	458	458	427	545	259	685	505	252	458
25	780	620	540	454	458	422	545	280	476	500	320	545
26	765	620	540	454	454	418	545	328	348	545	304	635
27	750	585	550	458	454	409	525	360	312	545	320	730
28	745	570	550	454	449	440	515	324	312	545	336	805
29	745	585	565	458	---	418	500	436	422	467	304	795
30	740	590	540	454	---	404	495	495	344	380	269	775
31	740	---	520	458	---	409	---	510	---	332	262	---
TOTAL	26946	19900	17630	14833	13258	13536	13696	12572	16626	10418	8407	11548
MEAN	869	663	569	478	474	437	457	406	554	336	271	385
MAX	1090	745	605	525	485	454	545	1010	1580	545	360	805
MIN	740	570	520	450	449	404	376	207	312	204	201	252
AC-FT	53450	39470	34970	29420	26300	26850	27170	24940	32980	20660	16680	22910

CAL YR 1976 TOTAL 194393 MEAN 531 MAX 1100 MIN 224 AC-FT 385600
WTR YR 1977 TOTAL 179370 MEAN 491 MAX 1580 MIN 201 AC-FT 355800

06679500 NORTH PLATTE RIVER AT MITCHELL, NE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TEMPERATURE (DEG C)	TOTAL PCB (UG/L)	PCB IN BOTTOM MATERIAL (UG/KG)	POLYCHLORINATED NAPHTHALENES (UG/L)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL CHLORDANE (UG/L)	CHLORDANE IN BOTTOM MATERIAL (UG/KG)
JUL										
06...	1015	445	--	.0	1	.00	.00	.0	.0	0
SEP										
28...	1000	775	13.0	.0	1	.00	.00	.0	.0	0

DATE	TOTAL DDD (UG/L)	DDD IN BOTTOM MATERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)	TOTAL DIAZINON (UG/L)	TOTAL DIELDRIN (UG/L)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDOSULFAN (UG/L)
JUL										
06...	.00	.0	.00	.7	.00	.0	.00	.00	.2	.00
SEP										
28...	.00	.4	.00	2.2	.00	1.9	.00	.00	.3	.00

DATE	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ETHION (UG/L)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL MALATHION (UG/L)
JUL										
06...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00
SEP										
28...	.00	.1	.00	.00	.0	.00	.0	.00	.0	.00

DATE	TOTAL METHYL PARATHION (UG/L)	TOTAL METHYL TRITHION (UG/L)	TOTAL PARATHION (UG/L)	TOTAL TOXAPHENE (UG/L)	TOXAPHENE IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
JUL									
06...	.00	.00	.00	0	0	.00	.04	.00	.00
SEP									
28...	.00	.00	.00	0	0	.00	.00	.00	.00

06680000 TUB SPRINGS NEAR SCOTTSBLUFF, NE

LOCATION.--Lat 41°54'55", long 103°42'55", in SW1/4SW1/4 sec.33, T.23 N., R.55 W., Scotts Bluff County, Hydrologic Unit 10180009, 50 ft (15 m) upstream from bridge, 0.2 mi (0.3 km) downstream from headgates of Enterprise Canal, 1.5 mi (2.4 km) upstream from mouth, and 3.5 mi (5.6 km) northwest of Scottsbluff.

PERIOD OF RECORD.--October 1948 to current year.

REVISED RECORDS.--WSP 1310: 1949(M).

GAGE.--Water-stage recorder. Datum of gage is 3,926.54 ft (1,196.809 m) above mean sea level. See WSP 1918 for history of changes prior to Sept. 9, 1952.

REMARKS.--Records good. Natural flow of stream affected by diversions for irrigation, spill from Enterprise Canal, and return flow from irrigated areas.

AVERAGE DISCHARGE.--29 years, 37.3 ft^3/s (1.056 m^3/s), 27,020 acre-ft/yr (33.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,610 ft^3/s (45.6 m^3/s) June 21, 1952, gage height not determined, on basis of slope-area measurement of peak flow caused by break in Interstate Canal; minimum daily, 0.70 ft^3/s (0.020 m^3/s) May 7, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,260 ft^3/s (35.7 m^3/s) June 21, gage height, 6.75 ft (2.057 m); minimum daily, 21 ft^3/s (0.59 m^3/s) June 13,26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	53	46	38	34	29	24	25	32	30	37	45
2	70	53	45	39	33	28	24	25	32	27	33	45
3	72	52	45	40	33	27	24	24	31	30	32	42
4	70	53	47	40	33	28	24	32	30	33	33	30
5	72	53	48	40	33	28	23	56	30	29	36	27
6	73	52	48	39	33	28	23	68	32	33	40	30
7	71	51	52	39	33	27	24	71	34	31	43	35
8	69	50	52	38	33	26	24	73	30	31	41	43
9	68	50	53	37	33	27	24	60	152	30	38	51
10	69	50	47	44	32	27	25	46	38	30	33	43
11	69	50	46	45	32	26	27	56	24	29	36	44
12	70	49	45	46	32	26	28	49	23	27	34	48
13	69	49	46	45	32	27	26	45	21	27	35	48
14	68	48	46	45	32	27	25	43	22	29	35	49
15	69	49	46	42	34	27	32	45	22	31	38	49
16	68	49	45	41	33	28	32	38	23	30	35	48
17	68	50	44	45	33	27	28	26	28	28	35	49
18	65	49	44	45	32	27	26	22	26	27	39	48
19	65	47	43	45	32	27	27	25	36	32	38	52
20	64	46	43	45	32	27	26	26	62	35	39	44
21	65	47	42	45	32	27	25	35	287	29	39	37
22	64	47	43	44	31	27	25	36	30	30	42	31
23	63	47	43	41	31	25	25	39	26	31	50	34
24	60	47	43	35	31	25	25	39	24	37	48	38
25	61	47	42	35	31	25	25	37	22	37	50	42
26	60	46	42	35	30	25	25	40	21	37	46	62
27	59	45	42	35	31	25	25	32	22	35	45	97
28	57	46	40	34	29	31	25	29	24	39	47	103
29	57	46	38	35	---	26	25	32	28	42	44	90
30	55	47	37	35	---	25	25	33	46	36	41	88
31	55	---	37	35	---	26	---	33	---	37	41	---
TOTAL	2039	1468	1380	1247	900	831	766	1240	1218	989	1223	1492
MEAN	65.8	48.9	44.5	40.2	32.1	26.8	25.5	40.0	40.6	31.9	39.5	49.7
MAX	74	53	53	46	34	31	32	73	287	42	50	103
MIN	55	45	37	34	29	25	23	22	21	27	32	27
AC-FT	4040	2910	2740	2470	1790	1650	1520	2460	2420	1960	2430	2960

CAL YR 1976 TOTAL 15774 MEAN 43.1 MAX 99 MIN 15 AC-FT 31290
WTR YR 1977 TOTAL 14793 MEAN 40.5 MAX 287 MIN 21 AC-FT 29340

06681000 WINTERS CREEK NEAR SCOTTSBLUFF, NE

LOCATION.--Lat 41°51'08", long 103°37'35", in NW1/4SE1/4 sec.30, T.22 N., R.54 W., Scotts Bluff County, Hydrologic Unit 10180009, on right bank 700 ft (213 m) downstream from bridge on U.S. Highway 26, 1 mi (2 km) upstream from mouth, and 1.5 mi (2.4 km) east of Scottsbluff.

PERIOD OF RECORD.--October 1931 to current year. Prior to October 1971, published as Winter Creek near Scottsbluff.

GAGE.--Water-stage recorder. Datum of gage is 3,860.8 ft (1,176.77 m) above mean sea level. Prior to Nov. 19, 1938, nonrecording gage at site 700 ft (210 m) upstream at different datum. Nov. 19, 1938, to Sept. 30, 1958, water-stage recorder at present site at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--46 years, 53.1 ft³/s (1.504 m³/s), 38,470 acre-ft/yr (47.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,160 ft³/s (32.9 m³/s) June 21, 1977, gage height, 8.07 ft (2.460 m), from high-water mark; maximum gage height, 9.36 ft (2.853 m), present datum, Jan. 7, 1949, backwater from snowdrifts; minimum daily discharge, 0.9 cfs July 5, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,160 ft³/s (32.9 m³/s) June 21, gage height, 8.07 ft (2.460 m), from high-water mark; minimum daily, 9.6 ft³/s (0.27 m³/s) July 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	64	54	47	38	51	44	44	39	13	29	44
2	83	64	54	47	39	52	45	45	38	11	19	45
3	83	64	52	47	38	51	44	46	37	15	16	47
4	86	64	52	47	38	52	43	46	38	24	21	45
5	85	63	52	47	38	54	43	70	39	20	31	46
6	82	64	52	47	38	53	43	49	41	18	46	47
7	75	64	52	47	37	52	44	45	30	13	58	42
8	75	64	52	47	37	51	44	44	25	13	59	45
9	74	63	53	49	36	54	44	48	89	19	45	46
10	73	63	52	47	37	54	44	65	137	19	33	50
11	71	62	53	46	39	55	46	51	23	17	32	50
12	71	62	53	45	41	54	47	23	67	12	31	50
13	70	62	53	44	43	54	47	11	36	9.6	34	50
14	70	63	52	44	47	53	46	11	62	9.8	36	51
15	68	62	51	44	51	52	54	15	105	9.8	37	49
16	69	63	51	43	52	51	54	16	71	13	36	50
17	67	62	52	43	50	51	52	13	67	15	32	52
18	67	61	51	43	50	51	51	16	32	11	32	53
19	66	59	51	41	49	51	52	23	33	14	30	45
20	66	58	51	41	50	51	51	25	36	72	43	92
21	66	57	51	41	49	49	51	37	600	39	46	72
22	66	58	50	41	51	49	50	33	65	35	44	45
23	66	57	50	41	50	49	48	31	79	10	30	63
24	65	57	50	41	50	49	48	33	64	88	42	60
25	65	56	49	41	51	49	48	31	51	58	52	61
26	64	55	50	41	52	48	47	41	50	55	57	59
27	65	54	50	41	51	48	47	42	40	56	54	60
28	65	54	48	39	50	51	46	40	27	60	52	60
29	65	54	48	39	---	45	44	42	20	63	47	59
30	63	54	48	39	---	45	44	44	33	62	43	62
31	64	---	47	39	---	45	---	39	---	35	42	---
TOTAL	2195	1807	1584	1349	1252	1574	1411	1125	2042	901.2	1225	1666
MEAN	70.8	60.2	51.1	43.5	44.7	50.8	47.0	36.3	68.1	29.1	39.5	55.5
MAX	86	64	54	49	52	55	54	70	600	88	59	92
MIN	63	54	47	39	36	45	43	11	23	9.6	16	42
AC-FT	4350	3580	3140	2680	2480	3120	2800	2230	4050	1790	2430	3300

CAL YR 1976 TOTAL 17429.0 MEAN 47.6 MAX 91 MIN 7.1 AC-FT 34570
WTR YR 1977 TOTAL 18131.2 MEAN 49.7 MAX 600 MIN 9.6 AC-FT 35960

06681500 GERING DRAIN NEAR GERING, NE

LOCATION.--Lat 41°49'20", long 103°37'02", in SE1/4NE1/4 sec.6, T.21 N., R.54 W., Scotts Bluff County, Hydrologic Unit 10180009, near left bank on downstream side of bridge piling on county road, 0.2 mi (0.3 km) downstream from bridge on State Highway 92, 1 mi (2 km) upstream from mouth, and 2 mi (3 km) east of Gering.

PERIOD OF RECORD.--February 1931 to September 1965, October 1968 to current year.

REVISED RECORDS.--WSP 896: 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 3,853.62 ft (1,174.583 m) above mean sea level (levels by Corps of Engineers). See WSP 1918 for history of changes prior to June 27, 1958. June 27, 1958, to Oct. 27, 1970, at datum 3.0 ft (0.91 m) higher. Oct. 28, 1970 to Dec. 8, 1975, at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good. Base flow is mainly return water from land irrigated by Fort Laramie Canal.

AVERAGE DISCHARGE.--43 years, 45.3 ft³/s (1.283 m³/s), 32,820 acre-ft/yr (40.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,560 ft³/s (271 m³/s) June 8, 1950, gage height, 14.0 ft (4.27 m), present datum, from floodmarks, from rating curve extended above 2,200 ft³/s (62.3 m³/s) on basis of slope-area measurements at gage heights 12.67 ft (3.862 m) and 14.0 ft (4.27 m) present datum; minimum daily, 5 ft³/s (0.14 m³/s) Aug. 13, 14, 18, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 808 ft³/s (22.9 m³/s) June 9, gage height, 3.64 ft (1.109 m); minimum daily, 22 ft³/s (0.62 m³/s) May 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	36	29	28	27	25	27	25	65	83	86	113
2	44	36	31	28	27	25	27	26	49	72	78	113
3	41	35	31	28	27	25	27	27	51	74	101	123
4	40	35	31	28	27	25	27	28	53	75	164	123
5	39	35	31	28	27	25	25	22	49	74	100	121
6	39	35	31	28	27	25	25	24	52	72	96	112
7	40	35	31	27	27	25	24	23	51	68	91	106
8	40	35	31	26	25	25	24	25	53	69	90	101
9	41	35	31	25	25	25	25	50	198	68	84	96
10	41	35	30	26	24	26	25	80	160	76	81	103
11	40	35	31	27	24	24	28	112	108	78	81	126
12	40	35	31	28	25	24	28	157	162	76	75	123
13	40	35	31	29	25	29	28	169	184	74	75	117
14	40	35	31	29	25	30	30	121	102	75	76	104
15	38	34	31	28	25	28	40	136	147	74	72	106
16	38	34	31	28	25	28	45	117	160	68	78	112
17	38	35	31	28	25	28	30	100	134	65	78	112
18	38	35	32	28	25	28	30	86	182	65	80	117
19	38	35	30	28	25	27	25	63	160	65	83	121
20	38	34	30	28	25	27	25	63	117	93	80	121
21	39	33	30	28	25	26	25	90	173	90	81	121
22	39	34	30	28	26	26	25	103	160	83	86	119
23	39	35	30	28	27	26	25	90	128	88	90	126
24	39	34	30	28	25	25	25	96	169	83	84	175
25	39	33	29	28	25	26	25	100	112	80	88	157
26	39	33	29	28	25	26	25	113	103	91	88	121
27	39	28	30	27	25	24	25	145	100	88	88	105
28	39	28	29	27	25	44	24	188	93	154	96	70
29	39	28	29	28	---	27	26	173	91	93	103	78
30	36	29	29	27	---	25	26	136	90	91	115	81
31	36	---	28	27	---	26	---	108	---	91	115	---
TOTAL	1230	1014	939	857	715	825	816	2796	3456	2496	2783	3433
MEAN	39.7	33.8	30.3	27.6	25.5	26.6	27.2	90.2	115	80.5	89.8	114
MAX	54	36	32	29	27	44	45	188	198	154	164	175
MIN	36	28	28	25	24	24	24	22	49	65	72	70
AC-FT	2440	2010	1860	1700	1420	1640	1620	5550	6850	4950	5520	6810

CAL YR 1976 TOTAL 23263 MEAN 63.6 MAX 190 MIN 23 AC-FT 46140
WTR YR 1977 TOTAL 21360 MEAN 58.5 MAX 198 MIN 22 AC-FT 42370

06682000 NORTH PLATTE RIVER NEAR MINATARE, NE

LOCATION.--Main channel gage: Lat 41°47'26", long 103°31'11", in NE1/4SE1/4 sec.13, T.21 N., R.54 W., Scotts Bluff County, Hydrologic Unit 10180009, on left bank 220 ft (67 m) upstream from bridge on State Highway 326 and 1.8 mi (2.9 km) southeast of Minatare. Nine Mile channel gage: Lat 41°47'32", long 103°31'08", in NE1/4SE1/4 sec.13, T.21 N., R.54 W., Scotts Bluff County, Hydrologic Unit 10180009, on left bank 50 ft (15 m) upstream from bridge on State Highway 326 and 750 ft (229 m) north of main channel bridge.

DRAINAGE AREA.--24,700 mi² (64,000 km²), approximately, of which about 22,340 mi² (58,000 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--May to August 1916, May 1917 to September 1918, May to October 1919, April to September 1922, June 1923 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1710, WDR NE-76-1: Drainage area.

GAGE.--Main channel: Water-stage recorder. Datum of gage is 3,810.7 ft (1,161.50 m) above mean sea level. Nov. 2, 1966 to July 13, 1976 water-stage recorder at datum 1.00 ft (0.305 m) higher. See WDR NE-72 for history of changes prior to Nov. 2, 1966.
Nine Mile channel: Water-stage recorder. Datum of gage is 3,812.3 ft (1,161.99 m) above mean sea level. See WDR NE-72 for history of changes prior to Aug. 29, 1971.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. River flows in two channels for which separate records are computed; figures given herein represent combined discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,500 ft³/s (552 m³/s) July 2, 1917, from graph based on mean daily discharge and discharge measurement published by State engineer of Nebraska; minimum daily, 11 ft³/s (0.31 m³/s) Aug. 16-18, 1960.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 18, 1921, may have been greater than flood of July 2, 1917.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,510 ft³/s (71.1 m³/s) June 21; minimum daily, 248 ft³/s (7.02 m³/s) July 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1610	1150	890	763	744	736	759	726	624	391	455	515
2	1500	1130	885	772	740	740	749	717	609	361	383	551
3	1410	1120	892	755	749	736	752	710	611	332	401	559
4	1360	1100	890	764	743	731	743	671	598	342	526	543
5	1350	1090	895	753	744	737	730	539	592	369	496	555
6	1330	1060	883	750	742	735	726	486	590	366	508	550
7	1300	1050	886	731	733	745	729	500	574	356	550	499
8	1290	1040	888	719	730	741	729	506	573	357	542	497
9	1270	1030	897	710	731	738	720	605	640	506	512	524
10	1270	1020	896	695	731	740	715	980	1260	563	456	537
11	1260	1020	895	680	731	743	731	1160	660	462	435	547
12	1250	1020	897	695	736	690	780	1030	711	370	397	556
13	1250	1010	901	690	741	720	770	836	879	326	386	549
14	1240	1000	903	705	738	739	753	696	967	319	379	542
15	1220	986	889	700	741	735	830	617	1200	324	352	528
16	1260	982	886	779	749	723	937	598	966	323	327	541
17	1330	986	877	769	754	725	855	501	866	306	318	537
18	1450	986	872	772	749	723	797	435	721	248	320	559
19	1540	970	862	777	746	712	786	407	711	263	333	606
20	1560	964	865	776	748	702	782	367	709	403	343	636
21	1510	960	861	780	755	697	796	428	1620	389	350	636
22	1410	937	829	785	756	685	799	456	1800	508	356	654
23	1350	935	812	782	751	685	797	465	1600	517	362	666
24	1310	929	810	777	740	677	804	417	967	656	362	732
25	1270	929	808	770	741	672	805	413	769	700	403	792
26	1250	927	802	772	737	670	808	563	590	736	478	816
27	1220	896	807	768	737	669	785	640	505	732	486	909
28	1210	913	804	753	730	850	787	666	436	885	524	944
29	1190	896	797	759	---	780	761	663	437	732	543	1060
30	1180	893	776	751	---	756	740	680	436	651	526	1060
31	1170	---	764	749	---	756	---	663	---	556	489	---
TOTAL	41100	29925	26593	23375	20781	22510	23259	19075	23979	14262	13293	19196
MEAN	1326	998	858	754	742	726	775	615	799	460	429	640
MAX	1610	1150	903	785	756	850	937	1160	1800	885	550	1060
MIN	1170	893	764	680	730	669	715	367	436	248	318	497
AC-FT	81520	59360	52750	46360	41220	44650	46130	37840	47560	28290	26370	38080

CAL YR 1976 TOTAL 293903 MEAN 803 MAX 1640 MIN 238 AC-FT 583100
WTR YR 1977 TOTAL 277342 MEAN 760 MAX 1800 MIN 248 AC-FT 550100

06682500 NINEMILE DRAIN NEAR MCGREW, NE

LOCATION.--Lat 41°46'15", long 103°25'10", in SE1/4SE1/4 sec.23, T.21 N., R.53 W., Scotts Bluff County, Hydrologic Unit 10180009, on right bank 15 ft (5 m) upstream from highway bridge, 0.5 mi (0.8 km) upstream from mouth, and 1.5 mi (2.4 km) north of McGrew.

PERIOD OF RECORD.--January 1932 to current year.

REVISED RECORDS.--WSP 926: 1936.

GAGE.--Water-stage recorder. Altitude of gage is 3,780 ft (1,152 m), from topographic map. Prior to Apr. 30, 1938, nonrecording gage at present site and datum.

REMARKS.--Records good. Flow affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--45 years, 118 ft³/s (3.342 m³/s), 85,490 acre-ft/yr (105 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 933 ft³/s (26.4 m³/s) June 21, 1977, gage height, 4.97 ft (1.515 m); minimum daily, 24 ft³/s (0.68 m³/s) July 5, 1961, May 13, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 933 ft³/s (26.4 m³/s) June 21, gage height, 4.97 ft (1.515 m); minimum daily, 58 ft³/s (1.64 m³/s) July 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	220	130	102	93	80	79	78	66	87	78	197	196
2	190	127	102	92	80	80	77	68	92	65	181	192
3	192	130	103	92	80	79	78	69	88	58	173	194
4	192	127	104	94	79	78	77	81	90	63	175	190
5	188	126	104	92	79	78	77	68	94	64	193	194
6	183	124	105	92	79	78	78	86	97	63	206	198
7	186	124	104	92	79	80	78	86	91	66	207	190
8	180	124	104	92	79	80	78	116	86	69	213	186
9	179	123	104	90	78	81	77	76	87	90	200	187
10	176	120	102	91	77	81	77	84	99	113	195	192
11	159	120	105	90	76	79	79	96	91	109	198	203
12	157	119	104	92	77	77	81	90	100	102	191	211
13	152	119	102	91	77	79	80	84	110	99	185	209
14	150	119	101	90	79	79	79	80	216	98	191	203
15	145	118	100	89	79	77	92	81	237	99	181	200
16	155	116	99	87	79	77	95	85	201	96	187	190
17	155	116	95	87	80	75	81	86	170	97	173	186
18	150	115	98	86	79	75	76	96	121	102	170	185
19	146	112	96	85	79	75	77	102	127	110	181	189
20	126	110	97	84	79	72	76	102	126	444	181	184
21	121	108	97	85	79	72	74	97	330	279	188	187
22	120	108	96	85	79	72	73	104	160	286	196	184
23	119	106	96	84	78	71	72	98	125	276	189	182
24	125	106	93	83	78	70	72	83	117	264	188	173
25	144	107	91	84	78	71	71	95	107	255	190	180
26	141	107	88	83	77	71	70	137	85	271	186	188
27	140	105	88	82	77	72	70	108	81	266	189	179
28	135	105	88	82	77	86	70	98	85	316	202	175
29	134	106	91	83	---	77	70	92	100	231	204	185
30	132	105	90	82	---	76	68	89	92	219	212	178
31	131	---	91	81	---	78	---	86	---	212	198	---
TOTAL	4823	3482	3043	2715	2197	2375	2302	2789	3682	4960	5902	5684
MEAN	156	116	98.2	87.6	78.5	76.6	76.7	90.0	123	160	190	189
MAX	220	130	105	94	80	86	95	137	330	444	213	211
MIN	119	105	88	81	76	70	68	66	81	58	167	173
AC-FT	9570	6910	6040	5390	4360	4710	4570	5530	7300	9850	11710	11270

CAL YR 1976 TOTAL 48815 MEAN 133 MAX 297 MIN 66 AC-FT 96820
WTR YR 1977 TOTAL 43962 MEAN 120 MAX 444 MIN 58 AC-FT 87200

06682505 NORTH PLATTE RIVER AT MC GREW, NEBR.

LOCATION.--Lat 41°45'42", long 103°25'02", in SW1/4 sec.25, T.21 N., R.53 W., Scotts Bluff County, Hydrologic Unit 10180009, at bridge on county road 1.2 miles north of State Highway 92, 0.3 miles downstream from Ninemile Creek and 0.9 miles north of McGrew.

PERIOD OF RECORD.--Chemical analyses: June 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)
OCT										
18...	0850	1570	850	8.0	6.0	35	10.1	1.7	1900	330
NOV										
15...	0910	1110	980	7.8	3.0	20	10.2	2.0	14000	160
DEC										
20...	0915	960	1020	7.5	1.0	15	10.5	3.2	1800	840
JAN										
17...	0915	766	1000	7.7	1.0	25	11.1	1.2	630	320
FEB										
14...	0915	805	985	7.7	4.0	25	10.2	4.5	230	93
MAR										
21...	0910	814	1010	7.6	5.0	20	10.1	5.6	7000	400
APR										
18...	0915	916	1090	7.7	12.0	40	7.0	5.4	6000	6300
MAY										
16...	0900	673	1020	7.8	14.0	65	7.9	2.6	350	2800
JUN										
20...	0845	784	948	7.6	17.0	65	8.8	3.1	1200	2200
JUL										
18...	0900	331	1060	7.7	22.0	60	8.7	4.2	490	1200
AUG										
15...	0845	525	1060	7.7	18.0	35	9.0	2.0	360	--
SEP										
19...	0830	726	1020	7.7	11.0	35	9.9	4.0	280	--

DATE	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)
OCT										
18...	--	20	648	.88	.01	.79	.80	2.5	.12	.05
NOV										
15...	--	22	--	.90	.00	.88	.88	3.9	.13	.06
DEC										
20...	--	24	687	.93	.05	1.2	1.2	4.4	.11	--
JAN										
17...	--	23	663	.90	.25	.85	1.1	4.5	.14	--
FEB										
14...	--	26	--	.87	.11	.74	.85	4.1	.13	.06
MAR										
21...	--	17	673	.92	.06	.88	.94	3.9	.11	--
APR										
18...	--	28	715	.97	.41	.99	1.4	4.2	.31	--
MAY										
16...	--	21	--	.87	.04	1.2	1.2	3.0	.25	.05
JUN										
20...	--	21	619	.84	.05	.77	.82	2.4	.26	--
JUL										
18...	--	27	661	.90	.03	.93	.96	3.3	.20	--
AUG										
15...	7800	23	--	.88	.04	2.4	2.4	4.8	.16	.14
SEP										
19...	10500	20	650	.88	.01	.52	.53	3.2	.13	--

06682505 NORTH PLATTE RIVER AT MC GREW, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)
NOV 15...	0910	3	300	45	84	22	100	2.5	11	311
FEB 14...	0915	6	290	22	81	21	100	2.6	9.9	325
MAY 16...	0900	25	290	69	80	22	98	2.5	8.8	270
AUG 15...	0845	7	300	42	84	21	98	2.5	10	310

DATE	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)
NOV 15...	0	255	230	.5	37	660	7	150	0	0
FEB 14...	0	267	200	.6	37	636	--	160	--	--
MAY 16...	0	220	250	.5	25	639	4	130	1	0
AUG 15...	0	250	220	.5	38	698	--	170	--	--

DATE	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUS-PENDED MERCURY (HG) (UG/L) (71895)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)
NOV 15...	20	30	1	50	--	--	.1	5	0	60
FEB 14...	--	0	--	20	--	--	--	--	--	--
MAY 16...	5	30	8	0	.0	.0	.0	4	0	20
AUG 15...	--	20	--	0	--	--	--	--	--	--

06683000 BAYARD SUGAR FACTORY DRAIN NEAR BAYARD, NE

LOCATION.--Lat 41°44'10", long 103°19'53", in SE1/4NE1/4 sec.5, T.20 N., R.52 W., Morrill County, Hydrologic Unit 10180009, on right bank 600 ft (183 m) upstream from mouth and 1.2 mi (1.9 km) south of Bayard.

PERIOD OF RECORD.--October 1931 to current year.

REVISED RECORDS.--WSP 1310: 1937(M), 1941.

GAGE.--Water-stage recorder and concrete flume. Datum of gage is 3,746.20 ft (1,141.846 m) above mean sea level. Prior to Jan. 7, 1939, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--46 years, 28.4 ft³/s (0.804 m³/s), 20,580 acre-ft/yr (25.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 391 ft³/s (11.1 m³/s) July 3, 1956, gage height, 4.32 ft (1.317 m); no flow June 1, 2, July 4-8, 1934, May 16, 17, 1936, Aug. 8, 9, 1960, Apr. 29, 30, May 4, 5, 1962, May 23-31, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 143 ft³/s (4.05 m³/s) May 26, gage height, 2.38 ft (0.725 m); minimum daily, 0.40 ft³/s (0.011 m³/s) May 5-8,12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	28	22	20	22	20	19	.85	12	17	47	42
2	43	28	22	20	22	24	19	.71	12	13	43	41
3	44	28	22	20	21	25	19	.71	8.6	12	41	40
4	45	29	23	20	21	25	19	2.2	3.6	14	47	39
5	50	29	23	20	21	25	19	.40	3.2	17	50	38
6	44	29	23	20	21	25	19	.40	3.1	17	59	40
7	41	29	23	21	22	22	19	.40	3.2	20	48	42
8	43	29	23	19	22	20	19	.40	3.7	24	45	42
9	44	27	24	19	22	19	18	.47	3.9	17	44	30
10	43	26	24	19	22	20	18	18	5.3	18	43	23
11	41	26	24	19	22	16	19	29	6.1	23	45	21
12	43	25	24	19	23	20	20	.40	6.8	20	48	25
13	45	25	25	19	23	20	19	2.0	9.5	19	45	25
14	45	26	25	20	22	21	9.3	11	31	17	45	25
15	48	26	25	18	22	20	6.9	14	45	18	44	23
16	50	26	25	19	22	20	15	12	21	24	46	24
17	56	28	25	19	22	20	16	15	14	24	45	23
18	52	27	25	19	22	20	16	11	12	24	44	21
19	52	26	25	20	22	20	7.2	18	15	18	43	23
20	48	25	24	20	21	20	2.3	6.8	17	59	41	25
21	47	24	24	20	21	20	2.1	8.8	17	42	41	23
22	48	24	23	20	21	20	2.0	10	13	37	42	23
23	48	24	23	20	21	20	1.9	9.5	11	42	42	23
24	48	24	23	20	20	20	1.9	3.2	13	38	42	27
25	28	24	23	20	20	20	1.4	6.2	13	39	47	27
26	26	24	23	20	20	20	1.4	71	13	45	44	23
27	24	21	23	20	20	20	1.4	39	10	42	43	20
28	27	21	22	20	19	27	1.5	38	9.9	87	43	15
29	27	22	22	18	---	21	1.3	25	14	64	40	20
30	30	22	21	17	---	20	1.1	11	16	57	42	21
31	29	---	21	20	---	19	---	5.3	---	50	46	---
TOTAL	1303	772	724	605	599	649	334.7	356.74	365.9	958	1385	834
MEAN	42.0	25.7	23.4	19.5	21.4	20.9	11.2	11.8	12.2	30.9	44.7	27.8
MAX	56	29	25	21	23	27	20	71	45	87	59	42
MIN	24	21	21	17	19	16	1.1	.40	3.1	12	40	15
AC-FT	2580	1530	1440	1200	1190	1290	664	727	726	1900	2750	1650

CAL YR 1976 TOTAL 9152.13 MEAN 25.0 MAX 65 MIN .76 AC-FT 18150
WTR YR 1977 TOTAL 8896.34 MEAN 24.4 MAX 87 MIN .40 AC-FT 17650

06684000 RED WILLOW CREEK NEAR BAYARD, NE

LOCATION.--Lat 41°42'50", long 103°15'10", in NE1/4NE1/4 sec.13, T.20 N., R.52 W., Morrill County, Hydrologic Unit 10180009, on left bank 75 ft (23 m) downstream from timber bridge, 0.2 mi (0.3 km) downstream from Wild Horse drain, 0.8 mi (1.3 km) upstream from mouth, and 4.5 mi (7.2 km) southeast of Bayard.

PERIOD OF RECORD.--October 1931 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1937(M).

GAGE.--Water-stage recorder. Datum of gage is 3,717.29 ft (1,133.030 m) above mean sea level. Prior to Nov. 18, 1938, nonrecording gage and Nov. 18, 1938, to Apr. 15, 1946, water-stage recorder at site 65 ft (19.8 m) upstream at datum 2.00 ft (0.610 m) higher, and Apr. 16, 1946, to May 1, 1977, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Natural flow of stream affected by diversions and ground-water withdrawals for irrigation, return flow from irrigated areas, and occasional waste into creek from Tri-State canal.

AVERAGE DISCHARGE.--46 years, 87.5 ft^3/s (2.478 m^3/s), 63,390 acre-ft/yr (78.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,320 ft^3/s (65.7 m^3/s) July 3, 1956, gage height, 8.33 ft (2.539 m), present datum; maximum gage height, 8.8 ft (2.68 m) May 10, 1942, from floodmark, present datum; minimum daily discharge, 15 ft^3/s (0.42 m^3/s) Apr. 23, 1935, Apr. 26, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 752 ft^3/s (21.3 m^3/s) July 28, gage height, 5.11 ft (1.558 m); minimum daily, 35 ft^3/s (0.99 m^3/s) May 2,3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	212	99	84	76	58	61	63	37	81	68	170	192
2	167	98	84	75	59	61	62	35	78	59	106	208
3	161	99	83	73	60	60	62	35	93	61	89	206
4	155	99	84	74	59	60	62	47	79	66	83	215
5	160	99	84	73	60	60	57	38	64	70	125	222
6	161	98	84	74	60	60	57	37	53	66	150	236
7	160	95	84	76	60	61	57	196	44	64	174	252
8	162	95	84	79	60	61	58	151	44	65	166	242
9	159	94	85	79	60	62	60	114	46	72	149	215
10	154	93	84	76	60	60	60	141	47	78	137	207
11	154	92	84	72	60	64	62	131	117	81	128	199
12	146	92	83	67	60	65	62	103	173	73	123	216
13	146	91	84	67	59	64	60	70	166	69	103	222
14	146	90	83	67	58	63	62	83	224	74	106	219
15	141	89	83	66	59	60	74	74	296	74	113	216
16	134	88	83	64	59	60	79	92	232	74	108	209
17	118	89	83	65	60	59	69	97	172	77	98	205
18	111	86	83	65	59	59	62	104	83	76	86	211
19	111	84	81	64	58	58	62	81	78	70	87	207
20	110	83	80	64	58	57	62	69	77	156	94	200
21	107	82	80	63	59	58	62	73	139	134	94	184
22	107	83	79	63	58	59	58	72	173	127	99	179
23	106	84	80	63	57	60	45	66	108	110	100	172
24	104	83	80	62	60	60	49	56	82	118	135	174
25	103	83	79	63	61	59	53	51	77	121	188	209
26	103	86	79	61	61	59	51	99	72	132	161	231
27	102	85	78	62	62	60	52	74	62	134	160	223
28	102	83	79	60	61	71	48	65	51	414	158	169
29	102	84	79	60	---	66	46	73	60	258	154	150
30	102	85	78	60	---	62	38	85	78	255	154	192
31	101	---	77	58	---	63	---	78	---	216	173	---
TOTAL	4107	2691	2535	2091	1665	1892	1754	2527	3149	3512	3971	6182
MEAN	132	89.7	81.8	67.5	59.5	61.0	58.5	81.5	105	113	128	206
MAX	212	99	85	79	62	71	79	196	296	414	188	252
MIN	101	82	77	58	57	57	38	35	44	59	83	150
AC-FT	8150	5340	5030	4150	3300	3750	3480	5010	6250	6970	7880	12260

CAL YR 1976 TOTAL 38924 MEAN 106 MAX 290 MIN 53 AC-FT 77210
WTR YR 1977 TOTAL 36076 MEAN 98.8 MAX 414 MIN 35 AC-FT 71560

06684500 NORTH PLATTE RIVER AT BRIDGEPORT, NE

LOCATION.--Main channel gage: Lat 41°40'39", long 103°05'45", in NW1/4SW1/4 sec.28, T.20 N., R.50 W., Morrill County, Hydrologic Unit 10180009, on downstream side of pier near center of bridge on U.S. Highway 26, 0.5 mi (0.8 km) north of Bridgeport. Browns Creek channel gage: Lat 41°40'55", long 103°05'53", in NW1/4NW1/4 sec.28, T.20 N., R.50 W., Morrill County, on left bank 0.2 mi (0.3 km) upstream from culvert on U.S. Highway 26 and 0.8 mi (1.3 km) north of Bridgeport.

DRAINAGE AREA.--25,300 mi² (65,500 km²), approximately, of which about 23,300 mi² (60,300 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1896 to October 1900 (no winter records most years), May 1902 to November 1906, June to August 1915, May 1916 to current year. Monthly discharge only for some years, published in WSP 1310. Published as "near Camp Clark" 1896-1900.

REVISED RECORDS.--WSP 1390: 1897, 1915. WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Main channel: Water-stage recorder. Datum of gage is 3,656.14 ft (1,114.391 m) above mean sea level. See WSP 1918 for history of changes prior to Oct. 7, 1927.
Browns Creek channel: Water-stage recorder. Datum of gage is 3,663.51 ft (1,116.638 m) above mean sea level. See WSP 1918 for history of changes prior to June 1, 1943.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. River flows in two independently rated channels for which separate records are computed; figures herein represent combined discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,900 ft³/s (705 m³/s) June 26, 1899, gage height, 5.39 ft (1.643 m), site and datum then in use, from graph based on gage readings; minimum daily, 55 ft³/s (1.56 m³/s) May 28, 1934, Aug. 15, 1940, but may have been less during periods of no record for Browns Creek channel.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,130 ft³/s (60.3 m³/s) June 22; minimum daily, 299 ft³/s (8.47 m³/s) July 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1960	1330	1180	1050	951	906	823	896	639	878	882	874
2	1750	1320	1180	1040	960	915	814	823	592	827	699	920
3	1650	1310	1200	1000	960	924	813	797	588	341	580	970
4	1600	1310	1230	1000	960	897	810	854	578	358	671	955
5	1650	1330	1250	960	960	906	790	802	579	389	773	969
6	1650	1340	1230	969	960	897	820	705	559	346	887	980
7	1570	1320	1200	960	942	879	835	751	526	301	953	974
8	1530	1320	1220	987	942	888	835	793	527	299	1020	923
9	1520	1280	1200	951	924	861	817	761	574	347	925	865
10	1570	1270	1190	940	915	852	783	941	864	403	809	835
11	1560	1280	1180	840	933	906	761	1410	909	467	759	801
12	1520	1270	1210	780	960	870	796	1410	788	416	709	829
13	1530	1270	1200	800	996	870	822	1220	873	392	649	869
14	1560	1270	1200	820	969	897	822	1070	1090	392	631	887
15	1550	1270	1200	860	942	852	875	923	1480	377	644	940
16	1510	1270	1210	880	951	816	1220	816	1420	379	610	909
17	1530	1260	1200	860	951	816	1190	779	1190	383	598	872
18	1610	1250	1160	860	951	834	1070	673	944	352	614	880
19	1720	1270	1130	900	933	834	1030	611	850	306	673	877
20	1760	1260	1100	920	933	834	981	564	842	558	685	936
21	1760	1250	1100	940	915	853	960	530	1180	701	680	938
22	1640	1240	1070	960	915	881	983	555	1820	752	680	939
23	1570	1240	1070	1030	888	872	999	530	1680	768	674	956
24	1550	1230	1070	987	888	881	976	497	1190	847	674	991
25	1550	1230	1060	933	888	872	993	433	938	892	807	1070
26	1520	1200	1030	924	897	871	994	546	750	938	789	1130
27	1490	1150	1040	906	897	880	995	633	599	934	795	1150
28	1440	1120	1030	915	906	981	966	624	480	1400	855	1190
29	1380	1200	1030	933	---	994	990	609	464	1230	908	1210
30	1340	1200	1020	933	---	851	945	645	509	1120	902	1400
31	1350	---	1010	942	---	825	---	655	---	1020	931	---
TOTAL	48890	37860	35400	28780	26187	27215	27508	23856	26012	18313	23466	28999
MEAN	1577	1262	1142	928	935	878	917	770	867	591	757	967
MAX	1960	1340	1250	1050	996	994	1220	1410	1820	1400	1020	1400
MIN	1340	1120	1010	780	888	816	761	433	464	299	580	801
AC-FT	96970	75100	70220	57090	51940	53980	54560	47320	51590	36320	46540	57520

CAL YR 1976 TOTAL 376770 MEAN 1029 MAX 1960 MIN 294 AC-FT 747300
WTR YR 1977 TOTAL 352486 MEAN 966 MAX 1960 MIN 299 AC-FT 699200

06684500 NORTH PLATTE RIVER AT BRIDGEPORT, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	DIS-SOLVED OXYGEN (MG/L) (00300)
OCT 20...	1515	1370	1060	8.0	10.0	25	9.5
NOV 16...	1015	1250	986	8.1	5.5	20	10.1
DEC 21...	1400	1130	992	7.9	2.0	25	11.0
JAN 18...	1510	880	965	7.9	1.0	10	11.5
FEB 15...	1400	942	958	8.1	5.0	25	10.8
MAR 22...	1510	780	975	8.1	11.0	20	10.4
APR 19...	1515	852	955	8.1	10.0	30	8.4
MAY 19...	1400	560	1020	8.0	19.5	25	7.7
JUL 19...	1435	190	973	8.0	31.0	50	8.0
AUG 19...	0900	525	985	8.0	18.5	45	8.9
SEP 22...	1515	861	995	8.0	17.0	50	9.5

06685000 PUMPKIN CREEK NEAR BRIDGEPORT, NE

LOCATION.--Lat 41°37'38", long 103°02'10", in SW1/4 sec.12, T.19 N., R.50 W., Morrill County, Hydrologic Unit 10180013, on left bank 250 ft (76 m) downstream from bridge on U.S. Highway 385 and State Highway 92, 0.5 mi (0.8 km) upstream from mouth, and 4 mi (6 km) southeast of Bridgeport.

DRAINAGE AREA.--1,020 mi² (2,640 km²), approximately.

PERIOD OF RECORD.--February 1931 to current year.

REVISED RECORDS.--WSP 1390: 1932, 1934(M), 1935, 1936(M), 1938-39. WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Sheet piling control since December 1964. Datum of gage is 3,636.00 ft (1,108.250 m) above mean sea level. Prior to June 25, 1934, nonrecording gage on downstream side of bridge 240 ft (73 m) upstream and June 25, 1934, to May 18, 1936, water-stage recorder at upstream side of bridge 260 ft (79 m) upstream, both at datum 0.29 ft (0.088 m) higher.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--46 years, 30.0 ft³/s (0.850 m³/s), 21,740 acre-ft/yr (26.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,880 ft³/s (223 m³/s) June 9, 1965, gage height, 9.98 ft (3.042 m), from floodmark, from rating curve extended above 3,500 ft³/s (99.1 m³/s) on basis of rating extension for main channel and determination of flow over road; no flow July 22, 24-26, Aug. 5-8, 1975; July 9, 11, 22, 23, 28, 29, 1976; July 2-6, Aug. 2, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 68 ft³/s (1.93 m³/s) Aug. 25, gage height, 2.27 ft (0.692 m); maximum gage height, 2.89 ft (0.881 m) Jan. 10, backwater from ice; no flow July 2-6, Aug. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	9.9	16	16	13	16	17	16	11	.06	.02	10
2	5.6	9.8	16	15	13	16	17	15	11	.00	.00	12
3	5.2	9.7	16	16	14	15	18	15	11	.00	.06	13
4	5.3	10	16	17	15	15	19	14	9.8	.00	.07	12
5	5.7	11	16	17	15	15	19	15	7.3	.00	.12	11
6	6.0	11	16	20	15	15	19	14	6.8	.00	.39	7.7
7	6.0	11	17	20	15	14	19	15	6.3	.01	.36	7.2
8	6.0	13	16	20	15	14	19	14	8.1	.08	.54	6.5
9	6.0	13	17	19	16	15	19	14	2.7	.15	.72	6.0
10	6.2	13	16	18	16	15	20	14	18	.20	.58	6.2
11	6.3	13	16	18	15	15	21	15	7.3	.25	.29	6.3
12	6.4	14	17	18	15	14	22	14	8.5	.11	.26	6.7
13	6.7	17	16	19	16	16	22	13	12	.13	.33	7.2
14	6.8	16	16	20	16	21	22	12	22	.27	.37	7.1
15	6.8	16	16	19	16	19	22	13	14	.17	.36	6.6
16	7.0	16	16	18	16	16	24	12	3.0	.12	.24	6.8
17	7.7	15	16	17	16	16	21	12	5.2	.09	.13	6.6
18	8.3	16	16	16	17	16	21	12	3.8	.09	.14	6.6
19	8.2	17	16	16	17	15	21	49	11	.07	.28	6.5
20	8.2	16	16	16	17	15	21	50	11	.19	.25	6.6
21	8.6	14	15	15	18	15	20	49	15	.33	.22	6.5
22	8.6	12	15	15	18	17	19	51	11	.21	.24	6.5
23	8.3	15	15	15	16	21	18	42	9.7	.11	.35	6.6
24	8.3	15	15	14	15	22	18	29	5.0	.27	.51	6.7
25	8.3	15	15	14	14	21	18	12	2.0	.10	13	7.5
26	8.4	16	16	14	14	18	17	13	2.2	.14	22	11
27	9.6	15	17	14	15	18	16	15	1.0	.73	15	17
28	9.6	16	18	14	15	18	15	8.5	.26	.96	6.2	17
29	9.8	17	18	13	---	18	17	8.3	.20	1.6	5.9	16
30	10	19	18	13	---	18	17	9.9	.11	.01	5.5	24
31	10	---	17	14	---	17	---	11	---	.01	6.6	---
TOTAL	229.8	421.4	502	510	433	516	578	596.7	232.87	6.46	80.90	277.4
MEAN	7.41	14.0	16.2	16.5	15.5	16.6	19.3	19.2	7.76	.21	2.61	9.25
MAX	10	19	18	20	18	22	24	51	22	1.6	22	24
MIN	5.2	9.7	15	13	13	14	15	8.3	.11	.00	.00	6.0
AC-FT	456	836	996	1010	859	1020	1150	1180	462	13	160	550

CAL YR 1976 TOTAL 5185.31 MEAN 14.2 MAX 70 MIN .00 AC-FT 10290
WTR YR 1977 TOTAL 4384.53 MEAN 12.0 MAX 51 MIN .00 AC-FT 8700

06686000 NORTH PLATTE RIVER AT LISCO, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°29'18", long 102°37'25", in NW1/4SE1/4 sec.33, T.18 N., R.46 W., Garden County, Hydrologic Unit 10180009, near right bank on downstream side of pier of highway bridge, 0.5 mi (0.8 km) south of Lisco.

DRAINAGE AREA.--26,700 mi² (69,200 km²), approximately, of which about 24,700 mi² (64,000 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to September 1916, June to October 1917, September 1931 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,474.5 ft (1,059.03 m) above mean sea level. Prior to Sept. 8, 1931, nonrecording gage at present site at different datum and Sept. 8, 1931, to May 3, 1932, at present site at datum 1.0 ft (0.30 m) higher. May 4, 1932 to May 20, 1974, water-stage recorder at present site at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,100 ft³/s (569 m³/s) June 27, 29, 1917, from graph based on daily gage readings, from rating curve extended above 15,000 ft³/s (425 m³/s); minimum daily, 8 ft³/s (0.23 m³/s) Aug. 4, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,340 ft³/s (66.3 m³/s) Oct. 1, gage height, 2.66 ft (0.811 m); maximum gage height, 4.35 ft (1.326 m) Mar. 4, backwater from ice; minimum daily discharge, 240 ft³/s (6.80 m³/s) July 8,20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2270	1570	1300	1000	1100	986	975	953	695	404	887	964
2	2110	1570	1300	960	1080	980	964	931	695	349	785	1030
3	1810	1570	1290	900	1080	940	953	931	629	301	687	1050
4	1800	1540	1320	880	1080	900	931	942	638	275	620	1030
5	1810	1490	1340	700	1060	960	942	964	611	275	665	1010
6	1970	1510	1310	720	1060	1000	920	909	602	270	765	1010
7	1890	1490	1310	720	1060	1030	920	1160	584	250	855	1030
8	1810	1460	1290	720	1060	1030	942	953	575	240	887	1030
9	1780	1430	1290	760	1100	1030	920	909	638	300	865	909
10	1850	1490	1290	800	1160	1020	898	887	715	567	835	898
11	1800	1450	1280	820	1180	1000	898	1150	871	535	825	909
12	1780	1400	1270	840	1180	1000	975	1460	825	495	805	898
13	1760	1380	1290	860	1180	1000	964	1460	775	411	745	920
14	1710	1370	1290	900	1150	1010	1010	1310	876	362	675	898
15	1640	1380	1220	920	1110	1030	1070	1180	1010	349	665	887
16	1620	1400	1210	940	1110	1020	1200	1050	1320	331	667	887
17	1590	1410	1220	960	1170	1020	1320	986	1160	319	629	887
18	1670	1380	1240	980	1150	986	1220	898	1050	285	584	909
19	1810	1430	1250	1000	1120	975	1150	765	931	255	584	920
20	1930	1460	1220	1040	1120	964	1220	705	898	240	584	942
21	1930	1400	1200	1100	1140	953	1030	725	1010	375	593	942
22	1930	1320	1200	1100	1220	1020	1010	675	1580	535	611	920
23	1810	1320	1150	1100	1240	1080	1020	656	1950	567	647	931
24	1760	1320	1100	1100	1180	1080	997	620	1650	656	647	920
25	1740	1340	1100	1100	1100	1100	997	575	1160	685	765	1010
26	1780	1350	1140	1100	1080	1110	975	559	909	755	898	1080
27	1810	1200	1160	1120	1050	1120	975	675	745	825	920	1120
28	1780	1160	1160	1100	1010	1160	964	685	620	920	898	1140
29	1650	1160	1140	1120	---	1180	997	685	453	1170	942	1150
30	1610	1300	1140	1120	---	1100	975	705	411	1050	964	1220
31	1570	---	1100	1100	---	1010	---	705	---	953	964	---
TOTAL	55720	42110	38120	29600	31290	31798	30332	27768	26586	15312	23403	29451
MEAN	1797	1404	1230	955	1118	1026	1011	896	886	494	755	982
MAX	2270	1570	1340	1120	1240	1180	1320	1460	1950	1170	964	1220
MIN	1570	1160	1100	700	1010	900	898	559	411	240	584	887
AC-FT	110500	83530	75610	58710	62060	63060	60160	55080	52730	30370	46420	58420

CAL YR 1976 TOTAL 413320 MEAN 1129 MAX 2270 MIN 280 AC-FT 819800
WTR YR 1977 TOTAL 381486 MEAN 1045 MAX 2270 MIN 240 AC-FT 756700

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1970 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1970 to current year.
WATER TEMPERATURES: October 1970 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,100 micromhos Jan. 6, 1971; minimum daily, 578 micromhos July 31, 1977.
WATER TEMPERATURES: Maximum, 31.0°C July 19, 1972; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,010 micromhos Jan. 17; minimum daily, 527 micromhos July 31.
WATER TEMPERATURES: Maximum, 28.0°C June 9, 10; minimum, 0.0°C on several days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)
OCT							
05...	1115	1800	931	7.7	12.0	40	8.2
19...	1050	1000	960	7.9	5.0	25	10.9
NOV							
16...	1030	1420	898	7.9	4.0	20	10.6
DEC							
21...	1115	1200	932	7.7	.0	15	11.2
JAN							
18...	1230	960	936	7.8	.0	10	10.7
FEB							
15...	1045	1110	875	7.8	3.0	25	11.5
MAR							
22...	1300	1030	985	7.9	9.0	30	9.9
APR							
19...	1015	1110	938	7.7	9.5	50	9.0
MAY							
17...	1130	993	922	8.1	19.0	35	7.6
JUN							
21...	1310	976	880	7.9	21.5	100	7.6
JUL							
19...	1130	263	915	7.9	20.5	55	8.8
AUG							
16...	1145	668	985	8.0	21.0	55	8.9
SEP							
20...	1215	988	916	7.9	18.0	45	9.4

DATE	TIME	COLOR (PLATINUM-COBALT UNITS) (00080)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)
OCT										
19...	1050	--	2.0	570	240	--	280	51	--	--
NOV										
16...	1030	3	2.8	21	42	--	290	43	83	20
DEC										
21...	1115	8	2.0	29	--	--	300	35	86	21
JAN										
18...	1230	6	1.1	21	33	--	310	54	90	21
FEB										
15...	1045	6	2.8	6	57	--	290	35	84	20
MAR										
22...	1300	6	1.9	28	42	--	290	39	82	20
APR										
19...	1015	12	2.2	2900	680	--	270	22	76	19
MAY										
17...	1130	7	4.5	80	190	--	290	57	80	21
JUN										
21...	1310	10	4.1	1300	2200	--	270	47	76	19
JUL										
19...	1130	25	4.2	52	220	--	240	40	62	20
AUG										
16...	1145	8	2.8	107	--	606	270	61	77	20
SEP										
20...	1215	7	4.5	57	--	2400	280	47	78	20

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)
OCT 19...	--	2.3	--	--	--	234	--	--	--	40
NOV 16...	91	2.3	10	301	0	247	210	22	.5	38
DEC 21...	93	2.3	10	324	0	266	210	23	--	42
JAN 18...	90	2.2	11	316	0	260	210	22	--	42
FEB 15...	89	2.3	10	314	0	258	180	29	.6	39
MAR 22...	90	2.3	10	303	0	250	210	22	--	39
APR 19...	98	2.6	12	300	0	250	210	23	--	35
MAY 17...	87	2.2	9.0	280	0	230	210	22	.5	31
JUN 21...	86	2.3	8.9	270	0	220	200	20	--	34
JUL 19...	96	2.7	10	240	0	200	210	22	--	36
AUG 16...	90	2.4	11	260	0	210	220	22	.5	39
SEP 20...	89	2.3	10	280	0	230	200	22	.5	39

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	DIS-SOLVED NITRATE (N) (MG/L) (00618)	DIS-SOLVED NITRITE (N) (MG/L) (00613)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)
OCT 19...	--	601	.82	2920	2.4	.00	--	--	--
NOV 16...	629	635	.86	2410	--	--	3.0	2.7	.05
DEC 21...	--	658	.89	2130	2.9	.03	3.4	2.9	.05
JAN 18...	--	654	.89	1700	3.0	.04	3.0	3.0	.10
FEB 15...	631	620	.84	1890	--	--	3.0	3.0	.02
MAR 22...	--	635	.86	1770	2.9	.00	3.0	2.9	.03
APR 19...	--	632	.86	1800	2.4	.01	2.4	2.4	.03
MAY 17...	600	606	.82	1610	--	--	1.7	1.7	.02
JUN 21...	--	584	.79	1540	1.6	.01	1.6	1.6	.08
JUL 19...	--	578	.79	810	.80	.00	.82	.80	.03
AUG 16...	613	616	.83	1110	--	--	1.8	1.8	.01
SEP 20...	611	605	.83	1960	2.0	.00	2.5	2.0	.10

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)	DISSOLVED BORON (B) (UG/L) (01020)	DISSOLVED IRON (FE) (UG/L) (01046)	DISSOLVED MANGANESE (MN) (UG/L) (01056)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L) (38260)
OCT									
19...	.60	--	3.1	--	--	--	--	--	--
NOV									
16...	.08	.11	3.1	.16	.07	140	10	20	.00
DEC									
21...	1.2	1.2	4.3	.12	.07	--	--	--	.00
JAN									
18...	.60	.70	3.7	.10	.09	--	--	--	.10
FEB									
15...	.79	.81	3.0	.17	.07	150	0	10	--
MAR									
22...	.82	.85	3.9	.12	.04	--	--	--	.10
APR									
19...	.89	.92	3.3	.29	.10	--	--	--	.00
MAY									
17...	1.1	1.1	2.0	.19	.08	130	20	0	.10
JUN									
21...	1.2	1.2	2.6	.30	.08	--	--	--	.00
JUL									
19...	.21	.26	1.2	.09	.02	--	--	--	--
AUG									
16...	1.1	1.1	2.9	.25	.13	170	10	200	--
SEP									
20...	.76	.86	3.6	.13	.02	--	--	--	.10

DATE	TIME	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	DISSOLVED AMMONIA NITROGEN (N) (MG/L) (00608)	DISSOLVED ORGANIC NITROGEN (N) (MG/L) (00607)	SUSPENDED KJEL. NITROGEN (N) (MG/L) (00624)	DISSOLVED KJEL. NITROGEN (N) (MG/L) (00623)	TOTAL ARSENIC (AS) (UG/L) (01002)	SUSPENDED ARSENIC (AS) (UG/L) (01001)	DISSOLVED ARSENIC (AS) (UG/L) (01000)	TOTAL CADMIUM (CD) (UG/L) (01027)
NOV										
16...	1030	23	.00	.11	.00	.11	7	0	7	<10
FEB										
15...	1005	16	.01	.47	.33	.48	9	3	6	<10
MAY										
17...	1130	180	.00	.66	.44	.66	7	2	5	10
AUG										
16...	1145	0	.01	.73	.36	.74	7	2	5	<10

DATE	SUSPENDED CADMIUM (CD) (UG/L) (01026)	DISSOLVED CADMIUM (CD) (UG/L) (01025)	TOTAL CHROMIUM (CR) (UG/L) (01034)	SUSPENDED CHROMIUM (CR) (UG/L) (01031)	DISSOLVED CHROMIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	SUSPENDED COBALT (CO) (UG/L) (01036)	DISSOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	SUSPENDED COPPER (CU) (UG/L) (01041)
NOV										
16...	<10	0	0	0	0	<50	<50	0	<10	<8
FEB										
15...	<6	4	0	0	0	<50	<49	1	10	0
MAY										
17...	7	3	0	0	0	<50	<50	0	<10	<7
AUG										
16...	<10	0	0	0	0	<50	<50	0	20	19

DATE	DISSOLVED COPPER (CU) (UG/L) (01040)	TOTAL IRON (FE) (UG/L) (01045)	TOTAL LEAD (PB) (UG/L) (01051)	SUSPENDED LEAD (PB) (UG/L) (01050)	DISSOLVED LEAD (PB) (UG/L) (01049)	TOTAL MANGANESE (MN) (UG/L) (01055)	SUSPENDED MANGANESE (MN) (UG/L) (01054)	TOTAL MERCURY (HG) (UG/L) (71900)	SUSPENDED MERCURY (HG) (UG/L) (71895)
NOV									
16...	2	1700	<100	<100	0	90	70	.0	.0
FEB									
15...	10	1500	<100	<86	14	80	70	.0	.0
MAY									
17...	3	5500	<100	<70	30	160	160	.0	.0
AUG									
16...	1	990	<100	<100	0	200	0	.1	.1

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELE-NIUM (SE) (UG/L) (01147)	SUS-PENDED SELE-NIUM (SE) (UG/L) (01146)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	TOTAL ZINC (ZN) (UG/L) (01092)	SUS-PENDED ZINC (ZN) (UG/L) (01091)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
NOV 16...	.0	5	0	5	0	30	10	20	3.4
FEB 15...	.0	3	0	3	0	20	0	20	6.1
MAY 17...	.4	3	0	3	0	20	10	10	9.1
AUG 16...	.0	3	1	2	0	60	60	0	5.5

DATE	TIME	TOTAL ALDRIN (UG/L) (39330)	ALDRIN IN BOTTOM MA-TERIAL (UG/KG) (39333)	TOTAL CHLOR-DANE (UG/L) (39350)	CHLOR-DANE IN BOTTOM MA-TERIAL (UG/KG) (39351)	TOTAL DDD (UG/L) (39360)	DDD IN BOTTOM MA-TERIAL (UG/KG) (39363)	TOTAL DDE (UG/L) (39365)	DDE IN BOTTOM MA-TERIAL (UG/KG) (39368)	TOTAL DDT (UG/L) (39370)	DDT IN BOTTOM MA-TERIAL (UG/KG) (39373)
NOV 16...	1030	ND	--	ND	--	ND	--	ND	--	ND	--
FEB 15...	1045	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 17...	1130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 16...	1105	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	TOTAL DI-AZINON (UG/L) (39570)	DI-AZINON IN BOTTOM MA-TERIAL (UG/KG) (39571)	TOTAL DI-ELDRIN (UG/L) (39380)	DI-ELDRIN IN BOTTOM MA-TERIAL (UG/KG) (39383)	TOTAL ENDRIN (UG/L) (39390)	ENDRIN IN BOTTOM MA-TERIAL (UG/KG) (39393)	TOTAL ETHION (UG/L) (39398)	ETHION IN BOTTOM MA-TERIAL (UG/KG) (39399)	TOTAL HEPTA-CHLOR (UG/L) (39410)	HEPTA-CHLOR IN BOTTOM MA-TERIAL (UG/KG) (39413)	TOTAL HEPTA-CHLOR EPOXIDE (UG/L) (39420)
NOV 16...	ND	--	ND	--	ND	--	ND	--	ND	--	ND
FEB 15...	ND	--	ND	--	ND	--	ND	--	ND	--	ND
MAY 17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 16...	ND	--	ND	--	ND	--	ND	--	ND	--	ND

DATE	HEPTA-CHLOR EPOXIDE IN BOT-TOM MA-TERIAL (UG/KG) (39423)	TOTAL LINDANE (UG/L) (39340)	LINDANE IN BOTTOM MA-TERIAL (UG/KG) (39343)	TOTAL MALA-THION (UG/L) (39530)	MALA-THION IN BOTTOM MA-TERIAL (UG/KG) (39531)	TOTAL METH-OXY-CHLOR (UG/L) (39480)	METHOXY-CHLOR IN BOT-TOM MA-TERIAL (UG/KG) (39481)	TOTAL METHYL PARA-THION (UG/L) (39600)	METHYL PARA-THION IN BOT-TOM MA-TERIAL (UG/KG) (39601)	TOTAL METHYL TRI-THION (UG/L) (39790)	METHYL TRI-THION IN BOT-TOM MA-TERIAL (UG/KG) (39791)
NOV 16...	--	ND	--	ND	--	ND	--	ND	--	ND	--
FEB 15...	--	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 16...	--	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	TOTAL PARA-THION (UG/L) (39540)	PARA-THION IN BOTTOM MA-TERIAL (UG/KG) (39541)	TOTAL TOX-APHENE (UG/L) (39400)	TOX-APHENE IN BOTTOM MA-TERIAL (UG/KG) (39403)	TOTAL TRI-THION (UG/L) (39786)	TRI-THION IN BOTTOM MA-TERIAL (UG/KG) (39787)	TOTAL 2,4-D (UG/L) (39730)	TOTAL 2,4,5-T (UG/L) (39740)	TOTAL SILVEX (UG/L) (39760)	TOTAL ATRA-ZINE (UG/L) (39630)
NOV 16...	ND	--	ND	--	ND	--	ND	ND	ND	ND
FEB 15...	ND	--	ND	--	ND	--	ND	ND	ND	ND
MAY 17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 16...	ND	--	ND	--	ND	--	ND	ND	ND	ND

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE TIME	OCT 19,76 1050	NOV 16,76 1030	DEC 21,76 1115	JAN 18,77 1045	JAN 18,77 1230
TOTAL CELLS/ML	5200	3400	1700	1500	1100
DIVERSITY: DIVISION	1.5	0.6	1.1	1.0	0.9
.CLASS	1.5	0.6	1.1	1.0	0.9
..ORDER	2.1	0.9	1.3	1.3	1.0
...FAMILY	3.2	3.0	3.0	3.1	1.4
....GENUS	3.8	3.4	3.2	3.5	1.5

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	--	-	--	-
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	*	0	--	-	--	-	--	-	--	-
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	--	-	34	2	--	-
....MICRACTINIUM	280	5	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	10	1	--	-	*	0
....CHODATELLA	--	-	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	150	10	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	93	2	--	-	--	-	46	3	--	-
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	490	9	410	12	290#	17	--	-	--	-
....TETRASTRUM	--	-	--	-	--	-	--	-	--	-
..TETRASPORALES										
...COCCOMYXACEAE										
....OUROCOCCUS	160	3	--	-	--	-	--	-	--	-
...PALMELLACEAE										
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	93	2	--	-	10	1	11	1	*	0
..ZYGNEMATALES										
...DESMIDIACEAE										
....CLOSTERIUM	*	0	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 19,76		NOV 16,76		DEC 21,76		JAN 18,77		JAN 18,77	
TIME	1050		1030		1115		1045		1230	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	300	6	82	2	--	-	69	5	15	1
....MELOSIRA	70	1	82	2	19	1	--	-	7	1
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	46	1	190	6	29	2	23	2	--	-
....COCCONEIS	--	-	55	2	29	2	--	-	--	-
....RHOICOSPHENIA	70	1	110	3	29	2	--	-	--	-
...CYMBELLACEAE										
....AMPHORA	140	3	27	1	*	0	34	2	--	-
....CYMBELLA	93	2	140	4	58	3	11	1	--	-
....EPITHEMIA	--	-	--	-	--	-	--	-	18	2
...DIATOMACEAE										
....DIATOMA	46	1	490	15	77	5	140	9	36	3
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	--	-	--	-	--	-
....FRAGILARIA	300	6	190	6	360#	22	250#	17	--	-
....SYNEDRA	*	0	--	-	77	5	--	-	18	2
...GOMPHONEMATACEAE										
....GOMPHONEMA	120	2	140	4	67	4	34	2	22	2
...NAVICULACEAE										
....CALONEIS	--	-	--	-	*	0	--	-	--	-
....DIPLONEIS	--	-	27	1	--	-	--	-	--	-
....FRUSTULIA	*	0	--	-	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	--	-	--	-	--	-
....NAVICULA	460	9	710#	21	380#	23	320#	21	120	11
....PINNULARIA	--	-	--	-	--	-	140	9	--	-
....STAURONEIS	--	-	--	-	--	-	--	-	*	0
...NITZSCHIACEAE										
....DENTICULA	*	0	82	2	19	1	11	1	--	-
....NITZSCHIA	390	8	600#	18	--	-	130	8	--	-
...SURIRELLACEAE										
....SURIRELLA	*	0	--	-	58	3	11	1	*	0
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...CHROMULINACEAE										
....CHRYSOCOCCUS	--	-	--	-	10	1	--	-	--	-
...OCHROMONADACEAE										
....OCHROMONAS	--	-	--	-	--	-	--	-	7	1
.XANTHOPHYCEAE										
..HETEROCOCCALES										
...CENTRITRACTACEAE										
....CENTRITRACTUS	--	-	--	-	--	-	*	0	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....AGMENELLUM	46	1	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	--	-	--	-	110	8	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....APHANIZOMENON	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....LYNGBYA	700	13	--	-	--	-	--	-	--	-
....OSCILLATORIA	1200#	22	--	-	140	9	--	-	840#	76
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	--	-	--	-	--	-	*	0
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	55	2	--	-	--	-	*	0
....TRACHELOMONAS	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE TIME	MAY 25,77 1340	JUN 21,77 1310	JUL 19,77 1130	AUG 16,77 1145	SEP 20,77 1215
TOTAL CELLS/ML	14000	7000	46000	14000	9100
DIVERSITY: DIVISION	1.0	1.0	1.0	1.4	1.5
.CLASS	1.0	1.0	1.0	1.4	1.5
..ORDER	1.2	1.4	1.8	2.2	1.9
...FAMILY	2.3	2.5	2.6	3.1	2.9
....GENUS	2.7	2.6	2.9	3.2	3.3

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	290	3	--	-	820	6	310	3
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	540	4	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	--	-	5000	11	--	-	--	-
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	--	-	--	-	--	-
....MICRACTINIUM	340	2	--	-	3800	8	--	-	270	3
...OOCYSTACEAE										
....ANKISTRODESMUS	86	1	510	7	310	1	--	-	90	1
....CHODATELLA	--	-	--	-	630	1	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	1400	10	--	-	2500	6	360	3	--	-
....CRUCIGENIA	--	-	--	-	--	-	--	-	360	4
....SCENEDESMUS	4800#	33	3400#	49	7500#	17	730	5	2400#	27
....TETRASTRUM	--	-	--	-	--	-	--	-	360	4
..TETRASPORALES										
...COCCOMYXACEAE										
....OUROCOCCUS	--	-	--	-	--	-	--	-	--	-
...PALMELLACEAE										
....SPHAEROCYSTIS	--	-	39	1	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	260	2	--	-	7500#	17	--	-	400	4
..ZYGNEMATALES										
...DESMIDIACEAE										
....CLOSTERIUM	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE TIME	MAY 25,77 1340		JUN 21,77 1310		JUL 19,77 1130		AUG 16,77 1145		SEP 20,77 1215	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	170	1	1200#	17	14000#	31	590	4	310	3
....MELOSIRA	--	-	--	-	630	1	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	600	4	--	-	--	-	--	-	90	1
....COCCONEIS	--	-	79	1	310	1	--	-	130	1
....RHOICOSPHENIA	--	-	39	1	--	-	--	-	--	-
...CYMBELLACEAE										
....AMPHORA	86	1	--	-	--	-	91	1	--	-
....CYMBELLA	170	1	79	1	--	-	--	-	--	-
....EPITHEMIA	--	-	160	2	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	86	1	79	1	--	-	140	1	580	6
...FRAGILARIACEAE										
....ASTERIONELLA	520	4	--	-	--	-	--	-	--	-
....FRAGILARIA	--	-	160	2	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	1900	4	770	6	810	9
...GOMPHONEMATACEAE										
....GOMPHONEMA	260	2	--	-	--	-	91	1	130	1
...NAVICULACEAE										
....CALONEIS	--	-	--	-	--	-	--	-	--	-
....DIPLONEIS	--	-	--	-	--	-	--	-	--	-
....FRUSTULIA	--	-	--	-	--	-	--	-	--	-
....GYROSIGMA	--	-	39	1	--	-	--	-	*	0
....NAVICULA	780	5	390	6	940	2	1200	9	490	5
....PINNULARIA	--	-	--	-	--	-	--	-	--	-
....STAURONEIS	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....DENTICULA	86	1	--	-	--	-	--	-	--	-
....NITZSCHIA	4700#	33	510	7	310	1	270	2	180	2
...SURIRELLACEAE										
....SURIRELLA	--	-	160	2	--	-	--	-	--	-
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...CHROMULINACEAE										
....CHRYSOCOCCUS	--	-	--	-	--	-	--	-	--	-
...OCHROMONADACEAE										
....OCHROMONAS	--	-	--	-	--	-	--	-	--	-
.XANTHOPHYCEAE										
..HETEROCOCCALES										
...CENTRITRACTACEAE										
....CENTRITRACTUS	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROCCOCCALES										
...CHROCCOCCAEAE										
....AGMENELLUM	--	-	--	-	--	-	3400#	25	--	-
....ANACYSTIS	--	-	--	-	--	-	--	-	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....APHANIZOMENON	--	-	--	-	--	-	1500	11	--	-
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	--	-	--	-	--	-
....OSCILLATORIA	--	-	--	-	--	-	3200#	23	2100#	23
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	--	-	--	-	--	-	--	-
...CRYPTOMONODACEAE										
....CRYPTOMONAS	86	1	--	-	--	-	--	-	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-	91	1	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	CHLOR-A PERI- PHYTON CHROMO- SPECT- METRIC (MG/M2) (70955)	CHLOR-B PERI- PHYTON CHROMO- SPECT- METRIC (MG/M2) (70956)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70958)
NOV 16...	1864	7.84	.756	--	--
MAY 25...	15420	--	--	.450	.005

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	867	832	905	913	887	900	868	895	847	820	900	900
2	884	810	905	955	888	865	895	868	880	820	845	908
3	879	840	910	965	835	840	888	905	855	815	909	898
4	891	908	895	948	849	878	876	915	858	825	873	878
5	829	908	875	988	888	900	893	870	835	825	878	900
6	901	915	920	975	863	838	865	895	848	830	850	905
7	886	918	880	938	995	850	860	825	818	610	915	887
8	852	918	900	995	915	892	855	855	897	700	918	888
9	915	915	870	890	876	885	840	815	915	798	908	880
10	901	895	915	890	886	895	885	798	908	718	838	900
11	876	872	915	960	935	856	835	805	886	765	819	836
12	894	917	907	945	904	851	846	815	882	858	850	896
13	860	930	915	920	935	848	850	825	875	845	798	837
14	855	920	881	905	937	735	860	815	818	855	822	897
15	910	910	895	912	900	825	875	865	785	845	837	908
16	891	912	909	915	916	834	865	858	842	835	863	908
17	915	860	913	1010	903	918	825	875	775	838	877	897
18	904	907	905	980	893	910	885	887	845	855	868	825
19	899	910	895	865	907	945	880	893	778	885	837	910
20	884	885	865	1000	907	918	840	845	845	670	868	898
21	904	871	900	935	908	935	857	792	795	830	835	890
22	904	890	897	920	877	915	855	795	748	755	748	905
23	894	910	857	925	907	905	858	790	706	750	830	915
24	915	932	915	880	918	900	875	805	858	625	826	937
25	910	922	897	885	903	945	845	805	875	538	850	885
26	912	888	906	895	915	935	868	805	895	582	838	878
27	912	910	903	925	906	935	860	718	865	618	850	878
28	915	991	925	862	906	935	835	773	877	595	840	925
29	913	897	925	870	---	937	845	795	868	680	840	922
30	907	940	1000	900	---	935	845	808	855	608	905	915
31	921	---	1000	920	---	895	---	795	---	527	857	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.0	5.0	3.0	0.0	1.0	0.0	9.0	21.0	21.0	23.0	25.0	20.0
2	13.0	7.0	3.0	0.0	1.0	1.0	5.0	18.0	24.0	26.0	25.0	21.0
3	14.0	7.0	1.0	0.0	1.0	1.0	5.0	18.0	23.0	27.0	25.0	20.0
4	12.0	7.0	1.0	0.0	2.0	1.0	8.0	18.0	24.0	27.0	25.0	22.0
5	11.0	7.0	1.0	0.0	2.0	4.0	9.0	18.0	24.0	27.0	21.0	22.0
6	12.0	7.0	1.0	0.0	2.0	4.0	16.0	18.0	25.0	25.0	18.0	23.0
7	11.0	9.0	1.0	0.0	4.0	6.0	16.0	20.0	19.0	25.0	21.0	23.0
8	9.0	6.5	3.0	0.0	6.0	10.0	17.0	24.0	25.0	19.0	25.0	23.0
9	10.0	7.0	5.0	0.0	4.0	10.5	20.0	22.0	20.0	22.0	25.0	17.0
10	13.0	6.0	3.0	0.0	5.0	7.0	20.0	20.0	20.0	20.0	25.0	21.0
11	13.0	6.0	3.0	1.0	4.0	4.0	17.0	20.0	22.0	18.0	25.0	21.0
12	11.0	3.0	5.0	1.0	3.0	3.0	12.0	20.0	27.0	27.0	25.0	21.0
13	16.0	3.0	2.0	1.0	3.0	4.0	15.0	20.0	22.0	26.0	25.0	16.0
14	12.0	4.0	4.0	1.0	3.0	4.0	14.0	19.0	25.0	25.0	26.0	24.0
15	10.0	2.5	3.0	1.0	4.0	5.0	12.0	19.0	25.0	25.0	26.0	18.0
16	10.0	4.0	3.5	1.0	4.0	7.0	10.0	19.0	25.0	25.0	26.0	18.0
17	8.0	4.0	5.0	1.5	4.0	8.0	20.0	20.0	21.0	26.0	24.0	18.0
18	6.0	6.0	4.0	1.5	4.0	10.0	17.0	21.0	22.0	27.0	23.0	20.0
19	5.0	8.0	2.0	1.5	6.0	10.0	10.0	22.0	22.0	23.0	21.0	20.0
20	5.0	5.0	0.0	1.5	9.0	10.0	9.0	18.0	20.0	24.0	25.0	20.0
21	5.0	4.0	0.0	1.5	9.0	9.0	9.0	17.0	21.0	18.0	25.0	20.0
22	6.0	0.5	1.0	3.0	8.0	12.0	11.0	21.5	24.0	18.0	26.0	13.0
23	6.0	1.0	3.0	3.0	6.0	12.0	20.0	25.0	25.5	17.0	26.0	13.0
24	9.0	3.0	3.0	3.0	5.5	9.0	20.0	20.0	25.0	23.0	26.0	12.0
25	7.0	4.0	4.0	3.0	4.5	9.0	20.0	20.0	21.0	21.0	20.0	15.0
26	8.0	3.0	5.0	3.0	5.0	9.0	20.0	17.0	21.0	18.0	19.0	15.0
27	8.0	0.0	5.0	3.0	5.0	9.0	17.0	21.0	26.0	23.0	21.0	17.0
28	5.0	1.0	3.0	1.0	1.0	9.0	18.0	23.0	26.0	22.0	21.0	17.0
29	5.0	1.0	5.0	1.0	---	9.0	20.0	23.0	26.0	25.0	20.0	14.0
30	5.0	1.0	3.0	3.0	---	9.0	20.0	21.0	21.0	25.0	20.0	17.0
31	8.0	---	3.0	4.0	---	9.0	---	21.0	---	26.0	21.0	---

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SUS-PENDED SEDI-MENT (MG/L) (80154)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT 19...	1050	1800	5.0	283	1180	51	73	86	99	100
NOV 16...	1030	1420	4.0	101	387	17	48	70	97	100
DEC 21...	1115	1200	.0	144	466	35	60	71	96	100
JAN 18...	1230	960	.0	135	350	30	60	86	100	--
FEB 15...	1045	1100	3.0	157	466	53	70	88	95	99
MAR 22...	1300	1030	9.0	105	292	75	95	98	100	--
APR 19...	1015	1110	9.5	245	734	88	98	99	100	--
MAY 17...	1130	993	19.0	3840	10300	4	8	9	48	92
JUN 21...	1310	976	21.5	406	1070	81	88	96	98	100
JUL 19...	1130	263	29.5	58	41	36	--	--	--	--
AUG 16...	1145	668	21.0	202	364	86	91	96	100	--
SEP 20...	1215	944	18.0	236	602	54	84	96	99	100

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)
NOV 16...	1030	1420	3	--	0	4	36	69	85	98	100
MAY 17...	1130	993	3	0	1	4	30	57	76	93	100
AUG 16...	1145	668	3	--	0	7	36	74	88	98	100

06687000 BLUE CREEK NEAR LEWELLEN, NE

LOCATION.--Lat 41°20'07", long 102°10'21", in NE1/4 sec.30, T.16 N., R.42 W., Garden County, Hydrologic Unit 10180009, on right bank 130 ft (40 m) downstream from county highway bridge, 0.5 mi (0.8 km) downstream from bridge on U.S. Highway 26, 0.8 mi (1.3 km) upstream from mouth, and 1.5 mi (2.4 km) west of Lewellen.

DRAINAGE AREA.--1,190 mi² (3,082 km²), revised, approximately, of which about 80 mi² (207 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1930 to current year.

REVISED RECORDS.--WSP 1310: 1941(M). WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,310.04 ft (1,008.900 m) above mean sea level. See WSP 1918 for history of changes prior to Apr. 10, 1958.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--47 years, 67.7 ft³/s (1.917 m³/s), 50,350 acre-ft/yr (62.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 720 ft³/s (20.4 m³/s) May 20, 1938, gage height, 6.46 ft (1.969 m), present datum, from rating curve extended above 500 ft³/s (14.2 m³/s); maximum gage height, 6.93 ft (2.112 m), present datum, Dec. 21, 1945, backwater from ice; no flow for short periods in 1940, 1947, 1957, 1960-61, 1963, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 224 ft³/s (6.34 m³/s) Apr. 20, gage height, 4.17 ft (1.271 m); maximum gage height, 6.85 ft (2.088 m) Jan. 12, backwater from ice; minimum daily discharge, 0.22 ft³/s (0.006 m³/s) Aug. 12,13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	93	105	90	100	96	106	92	77	5.7	2.2	29
2	6.4	93	100	96	110	93	104	90	86	1.3	.45	31
3	7.4	93	89	100	100	52	103	90	86	.46	.41	30
4	11	93	90	100	100	70	103	89	70	.37	.39	28
5	16	94	90	90	96	90	99	87	62	.33	.66	25
6	21	93	90	80	96	100	99	86	46	.29	.42	24
7	38	92	88	72	92	101	100	102	48	.27	.42	23
8	43	94	99	70	96	100	100	152	39	2.7	.35	19
9	52	94	88	66	98	99	100	103	47	11	.28	25
10	60	94	86	60	97	95	98	95	45	38	.25	22
11	62	92	87	70	97	82	101	92	42	44	.23	21
12	61	90	87	80	98	94	116	91	46	26	.22	20
13	66	90	88	90	100	78	105	87	42	19	.22	24
14	68	90	88	100	98	125	99	84	28	16	1.7	28
15	71	90	87	110	98	175	108	80	21	14	6.1	29
16	73	89	86	90	98	200	114	79	15	4.5	7.1	29
17	75	92	87	90	98	115	104	78	15	.33	18	28
18	74	93	88	100	96	110	110	72	18	.25	18	24
19	76	94	86	120	95	107	109	68	21	2.4	19	23
20	78	93	86	110	95	103	193	63	27	5.1	16	25
21	85	90	90	100	98	98	154	66	64	6.7	8.2	27
22	91	89	95	100	98	97	106	76	47	13	7.5	29
23	91	90	93	100	99	104	98	68	31	16	8.7	28
24	91	91	94	96	99	108	95	63	26	15	13	28
25	92	93	92	90	96	107	94	72	25	16	20	30
26	93	92	94	86	96	107	93	70	28	9.8	22	31
27	93	80	96	84	97	107	92	94	22	5.5	28	31
28	93	80	95	90	95	119	91	85	18	3.9	30	33
29	93	90	95	90	---	121	95	82	14	1.5	32	32
30	93	110	90	90	---	109	95	85	10	1.5	33	35
31	92	---	80	100	---	105	---	77	---	2.1	31	---
TOTAL	1974.9	2751	2799	2810	2736	3267	3184	2618	1166	283.00	325.80	811
MEAN	63.7	91.7	90.3	90.6	97.7	105	106	84.5	38.9	9.13	10.5	27.0
MAX	93	110	105	120	110	200	193	152	86	44	33	35
MIN	6.4	80	80	60	92	52	91	63	10	.25	.22	19
AC-FT	3920	5460	5550	5570	5430	6480	6320	5190	2310	561	646	1610

CAL YR 1976 TOTAL 23033.42 MEAN 62.9 MAX 158 MIN .15 AC-FT 45690
WTR YR 1977 TOTAL 24725.70 MEAN 67.7 MAX 200 MIN .22 AC-FT 49040

06687500 NORTH PLATTE RIVER AT LEWELLEN, NE

LOCATION.--Lat 41°18'37", long 102°09'00", in SE1/4NW1/4 sec.33, T.16 N., R.42 W., Garden County, Hydrologic Unit 10180009, on right bank 20 ft (9 m) upstream from county highway bridge, 1 mi (2 km) south of Lewellen, and approximately 1.5 mi (2.4 km) upstream from high-water line of Lake McConaughy.

DRAINAGE AREA.--28,600 mi² (74,100 km²), approximately, of which about 25,400 mi² (65,800 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--July to September 1931, December 1940 to current year.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,290.16 ft (1,002.841 m) above mean sea level. July to September 1931 nonrecording gage near present site at different datum. December 1940 to Sept. 19, 1973, water-stage recorders on two channels at site 0.9 mi (1.4 km) downstream at datum approximately 6 ft (1.8 m) lower.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,500 ft³/s (382 m³/s) June 4, 1971; minimum daily, 44 ft³/s (1.25 m³/s) July 13, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,200 ft³/s (62.3 m³/s) Apr. 20, gage height, 5.57 ft (1.698 m); maximum gage height, 7.85 ft (2.393 m) Dec. 28, backwater from ice; minimum daily discharge, 211 ft³/s (5.98 m³/s) July 20,21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1810	1660	1080	1200	1400	1200	1180	1180	840	355	858	1060
2	1900	1630	1200	1050	1400	1140	1100	1080	822	355	770	1080
3	1880	1680	1300	820	1400	1100	1060	995	798	302	700	995
4	1790	1630	1500	800	1400	1100	1160	1060	718	288	718	995
5	1740	1630	1600	740	1400	1160	1180	1020	685	272	660	1080
6	1810	1610	1700	780	1400	1200	1060	995	640	284	770	1060
7	1860	1610	1800	800	1400	1250	995	1200	550	308	822	1080
8	1840	1610	1800	860	1400	1250	975	1420	500	325	935	1080
9	1860	1580	1700	900	1400	1280	995	1120	550	325	858	915
10	1810	1500	1650	920	1400	1280	995	1020	625	488	875	875
11	1790	1420	1500	920	1400	1250	995	1160	752	505	858	955
12	1840	1360	1500	920	1400	1200	1200	1590	1120	538	805	1060
13	1860	1420	1450	940	1400	1200	1080	1780	975	525	735	1140
14	1790	1420	1400	960	1450	1300	1040	1610	875	375	735	1100
15	1770	1380	1400	1000	1450	1300	1220	1400	1080	302	718	995
16	1720	1440	1400	1020	1400	1300	1380	1180	1180	295	718	995
17	1720	1500	1350	1060	1400	1320	1420	1120	1620	272	685	975
18	1770	1560	1320	1100	1350	1320	1540	1060	1240	237	625	975
19	1790	1610	1360	1160	1340	1340	1460	915	1100	218	595	975
20	1860	1610	1280	1200	1300	1360	2080	822	850	211	595	1020
21	1900	1630	1240	1250	1280	1280	1580	935	995	211	595	1020
22	1860	1520	1200	1300	1300	1240	1260	895	975	382	625	975
23	1700	1520	1200	1350	1360	1160	1160	752	1600	525	655	935
24	1720	1520	1200	1400	1280	1180	1160	718	1680	550	625	975
25	1720	1560	1200	1450	1240	1180	1100	700	1360	640	670	995
26	1790	1560	1200	1450	1260	1200	1140	735	1060	640	805	1080
27	1790	1500	1300	1450	1240	1200	1200	895	850	685	895	1140
28	1740	1200	1300	1400	1280	1260	1060	1020	735	770	915	1140
29	1740	840	1350	1350	---	1280	1080	875	610	915	935	1180
30	1720	960	1300	1350	---	1280	1160	935	525	1160	995	1200
31	1700	---	1300	1350	---	1140	---	858	---	1080	1060	---
TOTAL	55590	44590	43080	34250	38130	38270	35895	33025	27636	14358	23790	30910
MEAN	1793	1486	1390	1105	1362	1235	1197	1065	921	463	767	1030
MAX	1900	1680	1800	1450	1450	1360	2080	1780	1680	1160	1060	1200
MIN	1700	840	1080	740	1240	1100	975	700	500	211	595	875
AC-FT	110300	88440	85450	67930	75630	75910	71200	65510	54820	28480	47190	61310

CAL YR 1976 TOTAL 448077 MEAN 1224 MAX 1900 MIN 238 AC-FT 888800
WTR YR 1977 TOTAL 419524 MEAN 1149 MAX 2080 MIN 211 AC-FT 832100

06690000 LAKE MCCONAUGHY NEAR KEYSTONE, NE

LOCATION.--Lat 41°12'45", long 101°40'03", in NW1/4SW1/4 sec.3, T.14 N., R.38 W., Keith County, Hydrologic Unit 10180014, near right bank at outlet tower of Kingsley Dam on North Platte River, 4.5 mi (7.2 km) west of Keystone.

DRAINAGE AREA.--33,300 mi² (86,200 km²), approximately, of which about 25,800 mi² (66,800 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--February 1941 to current year.

GAGE.--Electric tape gage read once daily. Gage is referred to mean sea level.

REMARKS.--Reservoir is formed by earthfill dam; storage began Feb. 9, 1941. Capacity, 1,948,000 acre-ft (2.40 km³) between elevations 3,130.0 ft (954.02 m), sill of outlet gates, and 3,270.0 ft (996.70 m), top of morning-glory spillway gates. Elevation of crest of morning-glory spillway is 3,254.0 ft (991.82 m). Dead storage negligible. Figures given herein represent total contents. Water is used for power development and irrigation in South-Central Nebraska by the Central Nebraska Public Power and Irrigation District.

COOPERATION.--Records of elevations and capacity table furnished by the Central Nebraska Public Power and Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 1,920,000 acre-ft (2.37 km³) July 12-16, 1971, elevation, 3,269.1 ft (996.42 m); minimum observed since operation of reservoir began, 32,860 acre-ft (40.5 hm³) Sept. 29, 1941, elevation, 3,153.4 ft (961.16 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 1,581,000 acre-ft (1.95 km³) May 14-20, elevation, 3,257.8 ft (992.98 m); minimum observed, 1,213,000 acre-ft (1.50 km³) Sept. 26-30, elevation, 3,243.5 ft (988.62 m).

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents	Change in contents (acre-feet)
Sept. 30	3,243.6	1,216,000	-
Oct. 31	3,246.9	1,295,000	+79,000
Nov. 30	3,248.3	1,330,000	+35,000
Dec. 31	3,249.8	1,367,000	+37,000
CAL YR 1976	-	-	-89,000
Jan. 31	3,250.6	1,388,000	+21,000
Feb. 28	3,252.7	1,443,000	+55,000
Mar. 31	3,255.0	1,504,000	+61,000
Apr. 30	3,257.3	1,567,000	+63,000
May 31	3,257.7	1,579,000	+12,000
June 30	3,255.6	1,520,000	-59,000
July 31	3,247.5	1,310,000	-210,000
Aug. 31	3,244.2	1,230,000	-80,000
Sept. 30	3,243.5	1,213,000	-17,000
WTR YR 1977	-	-	-3,000

06690500 NORTH PLATTE RIVER NEAR KEYSTONE, NE

LOCATION.--Lat 41°12'30", long 101°37'50", in SW1/4 sec.1, T.14 N., R.38 W., Keith County, Hydrologic Unit 10180014, on right bank 0.2 mi (0.3 km) downstream from diversion dam of Sutherland Reservoir supply canal and 2.5 mi (4.0 km) southeast of Keystone.

DRAINAGE AREA.--29,300 mi² (75,900 km²), approximately, of which about 25,800 mi² (66,800 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June to August 1917, July to September 1939, May to September 1940, January to April 1941, March 1942 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1942, 1946-47. WSP 1630: 1958. WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,105.59 ft (946.584 m) above mean sea level, (Nebraska Public Power District bench mark). See WSP 1918 for history of changes prior to May 1, 1964.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Flow completely regulated by Lake McConaughy (station 06690000) since Feb. 9, 1941. Supply canal for Nebraska Public Power District diverts 0.2 mi (0.3 km) upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,300 ft³/s (575 m³/s) June 30, 1917, from graph based on daily gage readings; no flow for many days in 1975-77.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,210 ft³/s (90.9 m³/s) July 7, gage height, 5.85 ft (1.783 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	770	9.6	.00	.00	.00	.00	.00	66	2390	1940	216
2	55	770	4.8	.00	.00	.00	.00	.00	64	2530	1930	222
3	47	772	.93	.00	.00	.00	.00	.00	61	2630	1950	218
4	39	790	.00	.00	.00	.00	2.8	12	61	2610	1830	206
5	37	747	.00	.00	.00	.00	.00	.00	67	2650	1620	206
6	42	705	.00	.00	.00	.00	.00	.00	61	2620	1370	210
7	41	714	16	.00	.00	.00	.00	.00	60	2650	1210	206
8	37	728	.00	.00	.00	.00	.00	.00	60	2530	1210	203
9	32	742	.00	.00	.00	.00	.00	.00	61	2410	1140	206
10	34	716	.00	.00	.00	.00	.00	.00	63	2390	994	210
11	34	717	.00	.00	.00	148	.00	.00	70	2320	857	210
12	34	707	.00	.00	.00	42	.00	.00	64	2150	642	218
13	38	676	.00	.00	.00	1.4	.00	.00	61	2290	404	211
14	631	683	.00	.00	.00	.00	.00	.00	77	2270	396	203
15	730	609	.00	.00	.00	.00	.00	30	123	2020	306	207
16	750	608	.00	.00	.00	.00	.00	.00	151	2050	175	200
17	750	621	.00	.00	.00	.00	.00	.00	187	2080	177	197
18	760	591	.00	.00	.00	.00	.00	.00	194	2100	172	238
19	750	573	4.6	.00	.00	2.9	.00	2.2	194	2100	198	185
20	750	594	.00	.00	.00	1.5	.00	46	280	2240	239	167
21	750	561	.00	.00	.00	.00	.00	178	660	2350	250	204
22	760	526	.00	.00	14	.00	.00	139	850	2330	270	171
23	760	316	.00	.00	43	.00	.00	126	1040	2300	298	203
24	760	13	.00	.00	25	.00	.00	126	1060	2320	317	197
25	760	11	.00	.00	.00	.00	.00	128	1050	2120	343	210
26	770	5.2	.00	.00	.00	.00	.00	126	1050	1850	345	238
27	770	29	2.4	.00	.00	.00	.00	139	1300	1910	371	356
28	770	4.0	44	.00	.00	19	.00	128	1420	1920	360	432
29	780	.00	.00	.00	---	43	.00	130	2310	1930	341	427
30	780	4.5	.00	.00	---	21	.00	139	2810	1930	333	426
31	770	---	.00	.00	---	.00	---	108	---	1960	280	---
TOTAL	14122	15282.70	82.33	.00	82.00	278.80	2.80	1557.20	15555	69930	22268	7071
MEAN	456	509	2.66	.000	2.93	8.99	.093	50.2	519	2256	718	236
MAX	780	790	44	.00	43	148	2.8	178	2810	2650	1950	432
MIN	32	.00	.00	.00	.00	.00	.00	.00	60	1850	172	167
AC-FT	28010	30310	163	.00	163	553	5.6	3090	30850	138700	44170	14030

CAL YR 1976 TOTAL 252722.93 MEAN 690 MAX 3600 MIN .00 AC-FT 501300
WTR YR 1977 TOTAL 146231.83 MEAN 401 MAX 2650 MIN .00 AC-FT 290100

06690500 NORTH PLATTE RIVER NEAR KEYSTONE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	TEMPERATURE (DEG C) (00010)
OCT				
01...	1015	109	758	9.0
07...	1300	42	762	7.0
13...	1100	34	780	8.0
NOV				
02...	1040	771	720	6.0
09...	1115	735	710	6.0
16...	1130	596	714	6.0
23...	0950	518	775	5.5
MAY				
25...	1040	101	820	13.0
26...	1045	126	725	14.0
JUN				
02...	1245	60	738	15.0
07...	1015	60	655	14.0
14...	0955	60	705	16.5
20...	1135	190	765	15.5
24...	1020	1040	767	16.0

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	TEMPERATURE (DEG C) (00010)
JUL				
01...	1210	2360	800	16.0
11...	1145	2400	810	17.0
18...	1240	2060	775	16.0
25...	1345	2290	800	16.0
AUG				
01...	1130	1910	700	16.0
08...	1115	1180	736	16.5
15...	1110	373	768	16.5
22...	1030	260	800	17.0
23...	1125	305	725	18.0
30...	1015	328	810	18.0
SEP				
01...	1005	185	790	16.0
08...	1035	205	722	17.0
12...	1125	212	760	19.0
26...	1050	199	776	18.0

DATE	TIME	PH (UNITS) (00400)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)
NOV								
23...	0950	7.5	5	210	25	52	19	85
MAY								
25...	1040	7.6	7	220	35	55	19	83
AUG								
22...	1030	7.3	6	190	9	51	15	89
30...	1015	7.3	6	210	28	52	19	77

DATE	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED FLUORIDE (F) (MG/L) (00950)	DISSOLVED SILICA (SIO2) (MG/L) (00955)
NOV									
23...	2.6	11	223	0	183	200	22	.5	26
MAY									
25...	2.5	11	220	0	180	190	17	.5	26
AUG									
22...	2.8	11	220	0	180	180	21	.5	28
30...	2.3	10	220	0	180	180	22	.5	27

DATE	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DISSOLVED SOLIDS (TONS PER DAY) (70302)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)	DISSOLVED BORON (B) (UG/L) (01020)	DISSOLVED IRON (FE) (UG/L) (01046)	DISSOLVED MANGANESE (MN) (UG/L) (01056)
NOV								
23...	529	740	.72	.72	.01	140	10	20
MAY								
25...	513	140	.70	.54	.01	130	10	20
AUG								
22...	505	355	.69	.28	.08	140	10	60
30...	497	440	.68	.18	.08	140	30	80

06691000 NORTH PLATTE RIVER NEAR SUTHERLAND, NE

LOCATION.--Lat 41°12'37", long 101°06'53", in sec.4, T.14 N., R.33 W., Lincoln County, Hydrologic Unit 10180014, on left bank 80 ft (24 m) downstream from bridge on county road, 2.5 mi (4.0 km) upstream from Birdwood Creek, and 3.5 mi (5.6 km) north of Sutherland.

DRAINAGE AREA.--29,800 mi² (77,200 km²), approximately, of which about 26,120 mi² (67,700 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--June to October 1917, July 1931 to August 1933 (irrigation seasons only), May to September 1935, May 1936 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 976: 1942. WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,920 ft (890 m), from topographic map. Prior to Apr. 29, 1936, nonrecording gage near present site at different datums. Apr. 29, 1936, to Oct. 6, 1971, water-stage recorder at site 80 ft (24 m) upstream at present datum.

REMARKS.--Records good except those above 1,000 ft³/s (28.3 m³/s) and those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,300 ft³/s (575 m³/s) June 29, 1917, from discharge graph based on daily gage readings, from rating curve extended above 16,000 ft³/s (453 m³/s); no flow July 24-28, 30, 31, 1931, Aug. 7, 1934, July 20-28, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,610 ft³/s (73.9 m³/s) July 9, gage height, 3.65 ft (1.113 m); minimum daily, 35 ft³/s (0.99 m³/s) May 18,20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	667	860	197	122	120	184	197	170	237	1750	1650	158
2	379	859	202	120	120	160	185	167	170	1800	1640	88
3	281	886	170	118	120	160	202	167	140	1920	1680	83
4	241	904	167	118	120	136	202	136	123	2020	1760	76
5	206	913	167	116	118	136	215	76	83	2110	1710	73
6	233	842	167	116	118	160	202	76	73	2080	1670	68
7	263	788	154	112	116	167	181	88	71	2060	1360	68
8	233	795	151	112	116	160	170	86	71	2250	1260	68
9	206	788	147	108	116	137	166	81	51	2150	1170	68
10	189	795	167	100	120	137	158	71	51	2850	1020	68
11	181	765	167	100	130	225	162	89	51	2200	913	73
12	185	788	187	102	167	245	193	85	81	2150	737	88
13	177	788	184	104	137	268	181	83	111	1910	604	94
14	185	788	160	108	137	310	166	82	58	1920	406	88
15	503	788	137	108	134	263	197	38	47	1860	368	76
16	702	723	137	106	134	277	224	38	51	1680	215	76
17	758	716	137	106	134	286	202	36	64	1600	106	73
18	788	744	137	104	137	263	268	35	91	1590	81	71
19	795	716	137	104	137	250	281	36	123	1580	60	83
20	803	695	137	110	137	233	597	35	117	1600	60	98
21	795	709	158	114	137	211	498	52	162	1810	64	98
22	803	639	170	116	160	197	325	147	422	1920	68	118
23	819	639	158	116	151	206	255	151	597	2030	73	88
24	819	481	162	120	173	211	224	123	716	2020	73	108
25	811	272	167	122	177	215	211	97	481	2020	105	118
26	834	224	151	130	158	219	189	103	688	1920	108	166
27	842	211	136	122	188	202	158	98	632	1650	100	189
28	859	181	136	116	188	250	154	83	877	1650	116	268
29	859	215	130	110	---	286	170	73	1270	1650	127	388
30	868	206	130	110	---	246	181	569	1600	1620	130	474
31	859	---	126	120	---	215	---	838	---	1640	193	---
TOTAL	17223	19726	4609	3490	3772	6475	6710	3408	9519	58990	19629	3636
MEAN	556	658	149	113	135	209	224	110	317	1903	633	121
MAX	868	913	202	130	177	310	597	569	1600	2850	1760	474
MIN	177	181	126	100	116	136	154	35	47	1580	60	68
AC-FT	34160	39130	9140	6920	7480	12840	13310	6750	18880	117000	38930	7210

CAL YR 1976 TOTAL 248819 MEAN 680 MAX 3220 MIN 37 AC-FT 493500
WTR YR 1977 TOTAL 157181 MEAN 431 MAX 2850 MIN 35 AC-FT 311800

06692000 BIRDWOOD CREEK NEAR HERSHEY, NE

LOCATION.--Lat 41°13'20", long 101°04'12", in NE1/4NW1/4 sec.2, T.14 N., R.33 W., Lincoln County, Hydrologic Unit 10180014, on left bank 60 ft (18 m) downstream from bridge on county road, 1 mi (2 km) upstream from mouth, and 5 mi (8 km) northeast of Hershey.

DRAINAGE AREA.--940 mi² (2,435 km²), approximately, of which about 80 mi² (207 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--May 1931 to current year.

REVISED RECORDS.--WSP 1390: 1940(M), 1949, 1951-52(M). WDR NE-67, WDR NE 76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,920 ft (890 m), from topographic map. Jan. 1, 1931, to Dec. 16, 1934, nonrecording gage and Dec. 17, 1934, to Nov. 4, 1953, water-stage recorder, at site 50 ft (15 m) upstream at present datum.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--46 years, 153 ft³/s (4.333 m³/s), 110,800 acre-ft/yr (0.137 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,770 ft³/s (50.1 m³/s) Apr. 1, 1949, gage height, 4.35 ft (1.326 m), from rating curve extended above 680 ft³/s (19.3 m³/s); maximum gage height, 5.12 ft (1.561 m) Dec. 15, 1940, backwater from ice; minimum daily discharge, 61 ft³/s (1.73 m³/s) Jan. 19, 1935, Apr. 7, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 486 ft³/s (13.8 m³/s) July 10, gage height, 1.97 ft (0.600 m); maximum gage height, 4.03 ft (1.228 m) Jan. 9, backwater from ice; minimum daily discharge, 115 ft³/s (3.26 m³/s) July 4,5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138	157	145	164	183	155	168	170	160	116	127	136
2	135	158	147	167	183	158	164	169	157	116	129	135
3	133	160	152	190	186	150	163	169	157	116	129	136
4	129	161	155	175	183	160	169	171	156	115	136	135
5	126	163	155	175	174	160	168	164	157	115	136	132
6	144	163	150	160	171	162	173	164	156	119	145	130
7	146	160	155	175	167	167	175	191	155	125	140	138
8	138	160	156	150	168	172	175	173	155	146	138	135
9	140	160	160	125	170	168	172	164	157	171	136	135
10	142	157	161	140	170	170	170	160	156	276	133	136
11	142	155	160	140	168	155	171	162	154	157	132	139
12	140	155	160	150	164	165	182	160	185	136	131	140
13	142	157	162	140	171	160	166	158	183	130	131	142
14	143	158	161	165	165	180	168	157	146	128	132	139
15	140	160	158	160	158	200	209	156	136	126	139	140
16	139	163	162	150	161	198	196	182	134	128	141	144
17	139	163	164	150	161	196	180	152	143	127	134	146
18	138	164	166	155	158	166	222	156	149	125	133	145
19	132	163	163	160	160	170	189	166	153	120	138	142
20	136	160	155	165	156	165	249	158	147	121	130	145
21	137	160	160	175	162	160	190	190	148	147	127	145
22	137	158	160	180	161	163	188	182	148	144	126	143
23	140	158	163	165	171	179	180	167	148	141	130	144
24	144	163	176	160	154	190	171	159	140	138	126	143
25	142	166	176	160	155	185	170	155	139	139	127	145
26	146	163	169	155	156	183	169	156	136	135	130	145
27	145	150	171	155	159	181	171	201	126	132	141	146
28	147	152	174	150	156	207	168	166	126	131	137	147
29	149	157	161	160	---	188	174	158	122	130	138	148
30	152	154	154	140	---	163	179	188	118	128	138	155
31	154	---	152	165	---	160	---	162	---	127	138	---
TOTAL	4353	4770	4963	4961	4651	5336	5389	5156	4443	4205	4182	4227
MEAN	140	159	160	160	166	172	180	166	148	136	135	141
MAX	154	166	176	190	186	207	249	201	185	276	145	155
MIN	126	150	145	125	154	150	163	152	118	115	126	130
AC-FT	8630	9460	9840	9840	9230	10580	10690	10230	8810	8340	8290	8380

CAL YR 1976 TOTAL 54820 MEAN 149 MAX 218 MIN 107 AC-FT 108800
WTR YR 1977 TOTAL 56602 MEAN 155 MAX 276 MIN 115 AC-FT 112300

06692500 LINCOLN COUNTY DRAIN NO. 1 NEAR NORTH PLATTE, NE

LOCATION.--Lat 41°09'40", long 100°47'25", in NE1/4NE1/4 sec.30, T.14 N., R.30 W., Lincoln County, Hydrologic Unit 10180014, on left bank 25 ft (8 m) upstream from highway bridge, 0.8 mi (1.3 km) upstream from mouth, and 1.5 mi (2.4 km) northwest of city of North Platte.

PERIOD OF RECORD.--March 1931 to September 1932 (published as Lincoln County drain at North Platte), April 1955 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,805 ft (855.0 m), from topographic map. Prior to Apr. 29, 1955, nonrecording gage at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good. Discharge is chiefly return flow from irrigated area.

AVERAGE DISCHARGE.--23 years, 63.4 ft^3/s (1.795 m^3/s), 45,930 acre-ft/yr (56.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 588 ft^3/s (16.7 m^3/s) June 22, 1965, gage height, 4.05 ft (1.234 m); minimum daily, 8.0 ft^3/s (0.23 m^3/s) Mar. 15, 1977, result of freeze out.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 225 ft^3/s (6.37 m^3/s) May 30, gage height, 2.22 ft (0.677 m); minimum daily, 8.0 ft^3/s (0.23 m^3/s) Mar. 15, result of freeze out.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	46	35	29	27	24	31	39	87	66	123	145
2	70	44	34	29	27	25	30	40	84	66	114	144
3	67	43	34	29	27	24	31	39	77	66	110	151
4	65	43	34	29	27	24	30	38	65	75	115	148
5	64	43	34	29	26	24	29	44	69	78	122	144
6	66	42	33	29	26	24	29	62	72	70	136	144
7	63	41	33	30	26	23	29	51	89	69	155	137
8	62	41	32	30	26	22	28	49	87	120	164	140
9	61	40	32	30	26	22	27	47	87	133	152	141
10	60	39	31	30	26	22	27	47	73	176	134	133
11	58	38	31	29	26	22	27	48	61	136	141	124
12	57	37	31	29	26	25	28	52	72	127	147	122
13	56	37	31	30	26	20	28	48	67	126	161	118
14	56	38	31	30	26	25	29	47	64	136	170	111
15	55	37	31	30	26	8.0	29	47	63	131	173	107
16	54	38	31	28	26	12	29	47	63	113	158	105
17	53	38	31	28	26	24	31	47	67	97	154	111
18	53	38	31	30	26	31	32	42	71	88	141	109
19	53	38	31	28	26	29	33	46	71	75	129	114
20	51	38	30	27	26	26	41	44	71	81	110	114
21	51	37	31	27	26	24	45	55	72	109	116	113
22	51	37	31	27	26	24	43	69	71	123	134	110
23	50	37	31	27	27	26	43	77	71	116	131	113
24	49	37	31	27	26	32	42	62	79	126	123	115
25	48	37	31	27	26	34	42	69	73	130	122	115
26	47	37	31	27	26	36	41	73	71	122	126	96
27	47	35	31	27	25	34	40	69	72	129	127	77
28	47	35	30	27	24	34	40	78	61	133	140	95
29	47	35	29	27	---	34	40	77	61	138	164	78
30	46	35	28	27	---	31	40	163	69	131	152	71
31	46	---	30	27	---	31	---	97	---	123	147	---
TOTAL	1760	1161	975	880	730	796.0	1014	1853	2162	3406	4299	3545
MEAN	56.8	38.7	31.5	28.4	26.1	25.7	33.8	59.8	72.1	110	139	118
MAX	107	46	35	30	27	36	45	163	89	176	173	151
MIN	46	35	28	27	24	8.0	27	38	61	66	110	71
AC-FT	3490	2300	1930	1750	1450	1580	2010	3680	4290	6760	8530	7030

CAL YR 1976 TOTAL 24084.0 MEAN 65.8 MAX 176 MIN 24 AC-FT 47770
WTR YR 1977 TOTAL 22581.0 MEAN 61.9 MAX 176 MIN 8.0 AC-FT 44790

06693000 NORTH PLATTE RIVER AT NORTH PLATTE, NE

LOCATION.--Lat 41°09'13", long 100°45'16", in sec.28, T.14 N., R.30 W., Lincoln County, Hydrologic Unit 10180014, on right bank 150 ft (46 m) downstream from bridge on U.S. Highway 83, 0.5 mi (0.8 km) north of city of North Platte, and 4.5 mi (7.2 km) upstream from confluence with South Platte River.

DRAINAGE AREA.--30,900 mi² (80,000 km²), approximately, of which about 26,300 mi² (68,100 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--February 1895 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area. WSP 2118: 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 2,792.14 ft (851.048 m) above mean sea level (Nebraska Department of Roads bench mark). See WSP 2118 for history of changes prior to June 3, 1968.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 29,600 ft³/s (838 m³/s) June 11, 1909, discharge measurement; minimum daily, 20 ft³/s (0.57 m³/s) Sept. 20, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,170 ft³/s (89.8 m³/s) July 11, gage height, 5.24 ft (1.597 m); minimum daily, 210 ft³/s (5.95 m³/s) June 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1120	1070	450	320	400	371	492	451	710	1670	1760	468
2	810	1060	444	310	410	370	470	469	514	1770	1710	406
3	644	1080	444	310	410	380	475	462	387	1840	1700	406
4	581	1060	406	310	410	400	522	416	352	1960	1780	400
5	549	1040	392	310	410	400	536	382	332	2020	1770	405
6	568	1070	359	310	410	400	516	356	315	2110	1830	393
7	699	1070	350	320	400	428	463	362	300	2060	1670	347
8	602	1070	350	330	400	412	445	363	294	2360	1470	336
9	504	1030	350	310	400	406	435	337	277	2590	1370	308
10	449	1040	350	310	400	419	438	327	250	2990	1240	293
11	419	1030	350	310	400	552	406	330	230	3010	1140	301
12	418	1020	374	300	390	321	457	329	240	2650	1030	310
13	420	1010	370	300	380	217	451	317	361	2390	886	323
14	408	979	378	290	370	462	441	304	290	2140	760	329
15	484	1020	378	290	367	814	506	273	237	2210	682	312
16	819	993	385	300	362	734	622	266	210	2010	571	310
17	943	932	399	300	365	740	623	253	231	1870	453	328
18	971	949	378	310	382	678	606	226	265	1730	382	327
19	998	944	364	310	388	659	739	281	307	1660	345	326
20	988	927	364	310	385	630	1180	234	338	1630	312	305
21	1000	925	371	310	382	552	1330	322	348	1740	294	354
22	1030	903	385	320	386	483	891	491	458	2090	309	366
23	1050	887	364	340	410	492	700	459	680	2180	323	375
24	1070	923	364	350	411	528	590	375	786	2130	313	361
25	1050	726	360	350	425	558	522	348	807	2150	336	383
26	1050	635	350	380	420	567	474	357	787	2170	312	354
27	1040	500	360	390	392	544	444	377	757	1980	313	358
28	1040	400	371	390	378	638	401	384	763	1810	404	385
29	1020	350	371	390	---	798	420	341	1070	1810	475	451
30	1020	400	350	390	---	586	456	786	1420	1750	477	553
31	1040	---	340	400	---	529	---	1120	---	1730	479	---
TOTAL	24800	27043	11625	10170	11043	16024	17049	12097	14326	64170	26856	10909
MEAN	800	901	375	328	394	517	568	390	478	2070	866	364
MAX	1120	1080	450	400	425	814	1330	1120	1420	3010	1830	553
MIN	408	350	340	290	362	217	401	226	210	1630	294	293
AC-FT	49190	53640	23060	20170	21900	31780	33820	23990	28420	127300	53270	21640

CAL YR 1976 TOTAL 332805 MEAN 909 MAX 3530 MIN 225 AC-FT 660100
WTR YR 1977 TOTAL 246112 MEAN 674 MAX 3010 MIN 210 AC-FT 488200

06762500 LODGEPOLE CREEK AT BUSHNELL, NE

LOCATION.--Lat 41°13'43", long 103°48'03", in sec.33, T.15 N., R.57 W., Kimball County, Hydrologic Unit 10190016, on right bank 1.5 mi (2.4 km) east of Bushnell and 1.5 mi (2.4 km) upstream from Oliver Reservoir.

DRAINAGE AREA.--1,361 mi² (3,525 km²).

PERIOD OF RECORD.--October 1931 to current year. Records for March to September 1931 at site 1.5 mi (2.4 km) upstream not equivalent owing to diversions. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1933, 1935, 1937-38, 1941, 1948-49. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,812.3 ft (1,466.79 m) above mean sea level. Prior to Mar. 26, 1938, nonrecording gage at present site and datum.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas. Diversions for irrigation of about 12,600 acres (51.0 km²) above station.

AVERAGE DISCHARGE.--46 years, 11.4 ft³/s (0.323 m³/s), 8,260 acre-ft/yr (10.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft³/s (467 m³/s) Sept. 15, 1950, gage height, 9.98 ft (3.042 m), from rating curve extended above 2,700 ft³/s (76.5 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.09 ft³/s (0.003 m³/s) July 20, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 125 ft³/s (3.54 m³/s) June 21, gage height, 4.28 ft (1.305 m); minimum daily, 0.58 ft³/s (0.016 m³/s) Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	3.5	3.4	3.7	3.4	4.4	5.3	4.2	3.1	2.3	1.8	.94
2	2.3	3.4	3.5	3.7	3.4	4.2	5.1	4.4	3.1	2.0	1.8	.94
3	2.3	3.5	3.8	3.5	3.4	3.5	5.1	4.0	3.2	2.5	1.4	.76
4	2.5	3.7	3.5	4.4	3.5	3.1	5.1	3.7	3.4	2.2	1.3	.76
5	2.6	3.7	3.4	4.0	3.7	4.4	4.9	3.1	2.9	1.9	1.9	.94
6	2.3	3.7	3.1	4.0	3.7	4.7	4.7	2.9	3.5	1.9	2.0	.85
7	2.5	3.7	3.5	4.0	3.8	5.1	4.4	3.2	3.7	1.9	1.5	1.0
8	2.3	3.8	3.7	4.2	4.0	4.9	4.4	3.1	3.5	1.9	1.2	1.0
9	2.5	3.8	3.7	4.0	4.2	4.7	4.7	3.2	3.4	1.6	1.0	.94
10	2.5	3.8	3.2	3.5	4.2	4.5	4.9	3.1	4.9	1.6	1.0	1.0
11	2.3	3.8	3.7	3.4	4.2	4.5	5.1	3.2	2.6	1.9	.94	1.1
12	2.3	3.8	3.4	3.1	4.2	4.5	5.1	3.2	2.8	1.3	.85	1.1
13	2.3	3.4	3.7	2.9	4.4	4.0	5.1	3.4	2.9	1.6	.85	1.3
14	2.3	3.7	3.5	2.9	4.4	3.5	5.3	3.2	3.2	1.3	1.1	1.0
15	2.1	3.4	3.5	2.9	4.2	3.0	6.5	2.8	2.9	1.2	.85	1.0
16	2.3	3.7	3.8	2.6	4.4	2.9	7.4	2.8	2.6	1.1	.85	1.1
17	2.3	3.7	3.8	2.6	4.7	2.1	6.2	2.9	2.6	.94	.94	1.3
18	2.5	3.7	3.8	2.8	4.9	2.1	5.5	2.9	3.2	.85	.85	1.5
19	2.6	3.8	3.5	2.8	5.1	2.3	5.5	3.2	18	.94	.85	1.5
20	2.6	3.8	3.4	3.1	5.1	4.7	5.5	3.1	4.3	2.0	.58	1.6
21	2.6	3.4	3.7	3.2	5.3	4.9	5.3	2.8	25	2.1	.67	1.6
22	2.8	3.8	3.7	3.2	4.9	6.0	4.9	3.1	16	1.6	1.0	1.8
23	2.8	4.0	3.7	3.4	4.4	7.8	4.7	2.9	4.9	2.2	1.0	1.3
24	2.9	4.2	3.8	3.2	4.4	8.1	4.9	2.9	4.2	2.9	1.2	1.6
25	3.1	4.2	3.8	3.1	4.4	8.1	4.7	2.9	3.7	2.5	1.2	1.9
26	3.2	3.7	4.0	3.2	4.2	8.1	4.4	2.9	3.7	3.1	.94	1.8
27	3.4	3.1	4.7	3.1	4.2	7.1	4.4	2.9	3.4	2.6	1.4	1.6
28	3.2	3.0	4.2	3.1	4.2	7.1	4.4	2.9	3.4	2.9	1.5	1.9
29	3.4	3.0	4.2	3.2	---	6.0	4.4	3.1	2.8	2.3	1.4	1.8
30	3.4	3.2	4.0	3.1	---	5.8	4.2	3.2	2.3	2.0	1.2	1.9
31	3.4	---	3.8	3.2	---	5.8	---	2.8	---	2.1	.85	---
TOTAL	81.9	109.0	114.5	103.1	118.9	151.9	152.1	98.0	154.2	59.23	35.92	38.83
MEAN	2.64	3.63	3.69	3.33	4.25	4.90	5.07	3.16	5.14	1.91	1.16	1.29
MAX	3.4	4.2	4.7	4.4	5.3	8.1	7.4	4.4	25	3.1	2.0	1.9
MIN	2.1	3.0	3.1	2.6	3.4	2.1	4.2	2.8	2.3	.85	.58	.76
AC-FT	162	216	227	204	236	301	302	194	306	117	71	77

CAL YR 1976 TOTAL 1483.09 MEAN 4.05 MAX 10 MIN .09 AC-FT 2940
WTR YR 1977 TOTAL 1217.58 MEAN 3.34 MAX 25 MIN .58 AC-FT 2420

06762550 LODGEPOLE CREEK AT KIMBALL, NE

LOCATION.--Lat 41°14'50", long 103°38'32", in NW1/4SW1/4NW1/4 sec.28, T.15 N., R.55 W., Kimball County, Hydrologic Unit 10190016, at bridge on county road 0.8 miles north of U.S. Highway 30 at east edge of Kimball.

PERIOD OF RECORD.--Water year 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLI- FORM .7UM-MF (COL./ 100 ML) (31625)	STREP- TOCOCCI (COL- ONIES PER 100 ML) (31679)
OCT										
18...	1230	.31	748	8.1	5.0	40	10.9	6.8	110000	38000
NOV										
15...	1300	7.4	878	7.8	1.0	80	9.3	6.0	120000	39000
DEC										
20...	1300	3.3	739	7.9	.5	15	9.0	11	170000	54000
JAN										
17...	1250	4.5	678	7.6	.5	15	9.0	9.8	190000	16000
FEB										
14...	1340	10	555	7.4	1.5	30	11.6	6.0	180000	14000
MAR										
21...	1240	4.2	515	7.9	3.0	35	10.4	8.5	200000	5300
APR										
18...	1245	11	550	8.2	9.0	25	8.6	3.2	46000	2800
MAY										
16...	1300	3.6	658	8.1	20.5	30	6.8	12	52000	3700
JUN										
20...	1300	1.2	1060	8.0	21.0	50	10.4	11	>200000	140000
JUL										
18...	1230	.56	900	8.2	31.0	25	5.1	29	220000	140000
AUG										
15...	1240	.37	935	8.1	25.0	15	16.4	13	230000	--
SEP										
19...	1300	.32	960	8.2	15.0	15	16.4	16	<330	--

DATE	FECAL STREP- TOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L) (00625)	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L) (00666)
OCT										
18...	--	57	495	.67	.26	4.4	4.7	7.8	2.3	2.3
NOV										
15...	--	47	--	.73	.00	1.6	1.6	4.9	1.0	1.0
DEC										
20...	--	46	492	.67	3.0	.90	3.9	6.9	1.7	--
JAN										
17...	--	44	416	.57	2.6	.70	3.3	6.0	1.0	--
FEB										
14...	--	30	--	.47	.81	1.1	1.9	4.0	.44	.33
MAR										
21...	--	19	381	.52	.73	.97	1.7	3.9	.42	--
APR										
18...	--	30	367	.50	.56	.94	1.5	2.5	.38	--
MAY										
16...	--	35	--	.51	1.5	1.4	2.9	4.9	.93	.78
JUN										
20...	--	140	608	.82	7.9	8.1	16	18	4.1	--
JUL										
18...	--	95	538	.73	4.4	1.7	6.1	9.5	4.5	--
AUG										
15...	12000	73	--	.70	9.8	10	20	22	7.4	6.5
SEP										
19...	11000	70	561	.76	7.2	.00	7.2	9.9	16	--

06762530 LODGEPOLE CREEK AT KIMBALL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)
NOV 15...	1300	22	310	89	87	23	49	1.2	15	272
FEB 14...	1340	8	210	8	61	15	29	.9	7.0	251
MAY 16...	1300	35	230	22	63	17	42	1.2	8.4	250
AUG 15...	1240	33	200	0	56	15	97	3.0	18	300

DATE	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED FLUORIDE (F) (MG/L) (00950)	DISSOLVED SILICA (SIO2) (MG/L) (00955)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DISSOLVED ARSENIC (AS) (UG/L) (01000)	DISSOLVED BORON (B) (UG/L) (01020)	DISSOLVED CADMIUM (CD) (UG/L) (01025)	DISSOLVED CHROMIUM (CR) (UG/L) (01030)
NOV 15...	0	223	140	.9	42	538	8	150	0	0
FEB 14...	0	206	41	.8	38	346	--	100	--	--
MAY 16...	0	210	44	.9	39	373	7	140	1	0
AUG 15...	0	250	62	.8	46	517	--	740	--	--

DATE	DISSOLVED COPPER (CU) (UG/L) (01040)	DISSOLVED IRON (FE) (UG/L) (01046)	DISSOLVED LEAD (PB) (UG/L) (01049)	DISSOLVED MANGANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUSPENDED MERCURY (HG) (UG/L) (71895)	DISSOLVED MERCURY (HG) (UG/L) (71890)	DISSOLVED SELENIUM (SE) (UG/L) (01145)	DISSOLVED SILVER (AG) (UG/L) (01075)	DISSOLVED ZINC (ZN) (UG/L) (01090)
NOV 15...	10	80	1	60	.1	.0	.1	2	0	130
FEB 14...	--	10	--	30	--	--	--	--	--	--
MAY 16...	7	40	8	20	.0	.0	.0	2	0	20
AUG 15...	--	70	--	30	--	--	--	--	--	--

06763500 LODGEPOLE CREEK AT RALTON, NE

LOCATION.--Lat 41°02'00", long 102°24'00", in NE1/4NW1/4 sec.12, T.12 N., R.45 W., Deuel County, Hydrologic Unit 10190016, on right bank 20 ft (6 m) downstream from county road bridge at Ralton, 2.1 mi (3.4 km) north of Colorado-Nebraska State line, and 5.5 mi (8.8 km) southeast of Chappell.

DRAINAGE AREA.--3,307 mi² (8,565 km²).

PERIOD OF RECORD.--March to September 1931, June 1951 to current year.

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 3,590 ft (1,094 m), from topographic map. March to September 1931, nonrecording gage at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas. Diversion for irrigation of about 24,300 acres (98.3 km²) above station.

AVERAGE DISCHARGE.--26 years (1951-77), 8.95 ft³/s (0.253 m³/s), 6,480 acre-ft/yr (7.99 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,560 ft³/s (129 m³/s) Aug. 15, 1968, gage height, 6.49 ft (1.978 m), from rating curve extended above 1,200 ft³/s (34.0 m³/s) on basis of slope-area measurement of peak flow; no flow at times in 1931, 1955, 1957, 1960, 1963-65, 1968, 1973-75, 1976 (entire year), 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15 ft³/s (0.42 m³/s) at 1230 on Apr. 20, gage height, 1.63 ft (0.497 m); no flow Oct. 1 - Apr. 19, Apr. 22 - Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	6.6	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.19	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	6.79	.00	.00	.00	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.23	.000	.000	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	6.6	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	13	.00	.00	.00	.00	.00

CAL YR 1976 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT .00
WTR YR 1977 TOTAL 6.79 MEAN .019 MAX 6.6 MIN .00 AC-FT 13

06764880 SOUTH PLATTE RIVER AT ROSCOE, NE

LOCATION.--Lat 41°07'33", long 101°34'35", in NW1/4SE1/4 sec.8, T.13 N., R.37 W., Keith County, Hydrologic Unit 10190018, at bridge on access road between U.S. Highway 30 and Interstate 80, about 0.5 miles southeast of Roscoe.

PERIOD OF RECORD.--July 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)
OCT 26...	1140	12	1790	8.2	5.0	5	12.3	2.4	530	260
NOV 23...	1100	33	1960	8.0	1.5	10	12.1	2.8	87	100
DEC 28...	1230	156	2080	7.7	1.0	10	12.2	1.4	160	200
JAN 24...	1215	130	2290	7.6	.5	10	13.0	1.0	360	180
FEB 22...	1150	282	2100	7.8	4.0	15	11.5	3.0	160	80
MAR 29...	1230	843	1930	7.9	8.0	30	11.1	5.0	260	420
APR 26...	1115	349	2030	7.8	15.0	10	9.7	1.8	52	190
MAY 23...	1145	77	2000	7.7	17.0	5	8.4	2.3	93	500
JUN 28...	1110	56	1810	7.9	22.0	5	12.3	5.4	57	--
JUL 26...	1120	28	1950	7.6	18.5	5	10.2	3.6	4400	--
AUG 22...	1230	19	1620	8.1	20.0	10	12.3	3.3	9600	--
SEP 27...	1100	7.6	1680	7.7	16.0	5	10.8	3.4	1000	--

DATE	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)
OCT 26...	--	81	1410	1.92	.00	.89	.89	.90	.28	.25
NOV 23...	--	82	--	1.89	.06	1.0	1.1	1.3	.23	.15
DEC 28...	--	91	1620	2.20	.15	.66	.81	2.6	.12	--
JAN 24...	--	99	1800	2.45	.07	.53	.60	2.8	.15	--
FEB 22...	--	90	--	2.07	.07	.57	.64	2.0	.11	.08
MAR 29...	--	85	1480	2.01	.06	4.2	4.3	6.3	.23	--
APR 26...	--	82	1560	2.12	.01	.66	.67	1.3	.07	--
MAY 23...	--	77	--	1.85	.03	2.3	2.3	3.0	.13	.11
JUN 28...	50	78	1320	1.80	.04	.55	.59	.78	.12	--
JUL 26...	190	73	1250	1.70	.04	.48	.52	1.4	.22	--
AUG 22...	960	76	--	--	.01	.97	.98	1.4	.29	.26
SEP 27...	130	82	1200	1.63	.15	.35	.50	.69	.34	--

06764880 SOUTH PLATTE RIVER AT ROSCOE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)
NOV										
23...	1100	4	650	450	170	55	180	3.1	16	242
FEB										
22...	1150	14	770	530	200	65	200	3.1	16	285
MAY										
23...	1145	5	660	460	170	56	180	3.1	16	240
AUG										
22...	1230	7	--	--	--	--	150	--	--	230

DATE	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)
NOV										
23...	0	198	750	.6	15	1390	2	270	0	0
FEB										
22...	0	234	790	.6	19	1520	--	290	--	--
MAY										
23...	0	200	720	.8	18	1360	2	260	1	0
AUG										
22...	0	190	560	.8	20	--	--	250	--	--

DATE	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUS-PENDED MERCURY (HG) (UG/L) (71895)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)
NOV										
23...	4	20	0	90	.0	.0	.0	3	0	20
FEB										
22...	--	20	--	50	--	--	--	--	--	--
MAY										
23...	3	20	9	20	.0	.0	.0	3	0	30
AUG										
22...	--	20	--	60	--	--	--	--	--	--

06765500 SOUTH PLATTE RIVER AT NORTH PLATTE, NE

LOCATION.--Lat 41°07'05", long 100°46'22", in NE1/4NE1/4 sec.8, T.13 N., R.30 W., Lincoln County, Hydrologic Unit 10190018, on left bank 0.5 mi (0.8 km) upstream from bridge on U.S. Highway 83, 0.7 mi (1.1 km) northwest of intersection of U.S. Highway 83 and Interstate 80 south of North Platte, and 5.5 mi (8.8 km) upstream from confluence with North Platte River.

DRAINAGE AREA.--24,300 mi² (62,900 km²), approximately.

PERIOD OF RECORD.--June to November 1897, June to August 1914, May to September 1915, and May 1917 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1932-33, 1935.

GAGE.--Water-stage recorder. Datum of gage is 2,787.73 ft (849.700 m) above mean sea level. See WSP 1918 for history of changes prior to Dec. 11, 1956. Dec. 11, 1956 , to Mar. 29, 1973, at site 0.5 mi (0.8 km) downstream at same datum.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. South Platte canal diverts around station; diversion began Nov. 13, 1946.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 37,100 ft³/s (1,050 m³/s) June 3, 1935, gage height, 14.02 ft (4.273 m), present datum; no flow at times in summers of most years prior to 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,090 ft³/s (59.2 m³/s) May 31, gage height, 8.29 ft (2.527 m); minimum daily, 94 ft³/s (2.66 m³/s) Jan. 5,6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	175	155	130	100	108	126	178	204	1380	134	162	170
2	153	170	140	98	108	140	178	196	777	132	140	175
3	124	155	132	98	108	135	176	181	580	127	132	187
4	106	136	136	98	108	130	160	158	456	129	136	181
5	97	136	140	94	110	128	146	143	382	124	140	172
6	124	136	135	94	116	128	152	147	346	121	165	177
7	155	132	135	100	120	123	155	160	300	129	175	180
8	164	124	140	98	124	124	145	149	270	173	196	194
9	170	124	128	98	130	124	149	141	265	190	185	201
10	167	124	128	100	138	136	145	141	257	277	190	188
11	170	120	122	110	140	232	146	142	257	261	208	180
12	172	120	124	114	128	299	150	142	267	236	196	181
13	159	118	124	120	124	196	148	139	250	224	214	174
14	163	118	128	120	120	271	152	135	226	203	202	179
15	180	120	136	120	122	220	165	125	220	181	208	183
16	177	120	140	110	126	252	177	126	220	144	196	182
17	175	124	140	108	124	315	185	134	214	129	196	186
18	174	132	145	110	121	427	202	143	202	130	190	185
19	177	140	145	114	113	516	196	143	202	133	180	187
20	172	140	135	114	112	403	244	153	202	132	180	183
21	171	130	135	114	115	284	296	199	204	142	185	173
22	173	143	140	116	122	229	283	212	196	136	202	177
23	164	130	155	114	117	198	248	217	191	139	202	182
24	176	133	140	114	129	190	236	209	194	165	196	165
25	189	137	136	118	126	192	216	194	185	170	202	153
26	183	132	160	118	134	193	191	188	167	159	185	158
27	162	130	132	120	129	177	192	200	148	150	185	157
28	165	120	136	118	128	169	195	199	150	145	190	169
29	166	120	130	114	---	185	201	186	144	145	196	174
30	160	125	120	108	---	178	205	306	135	143	175	210
31	159	---	120	108	---	181	---	1180	---	150	180	---
TOTAL	5022	3944	4187	3370	3400	6601	5612	6292	8987	4953	5689	5363
MEAN	162	131	135	109	121	213	187	203	300	160	184	179
MAX	189	170	160	120	140	516	296	1180	1380	277	214	210
MIN	97	118	120	94	108	123	145	125	135	121	132	153
AC-FT	9960	7820	8300	6700	6750	13090	11130	12480	17830	9820	11280	10640

CAL YR 1976 TOTAL 61306 MEAN 168 MAX 380 MIN 97 AC-FT 121600
WTR YR 1977 TOTAL 63428 MEAN 174 MAX 1380 MIN 94 AC-FT 125800

06766000 PLATTE RIVER AT BRADY, NE

LOCATION.--Lat 41°01'10", long 100°22'16" (north channel only), on two channels in secs.11 and 23, T.12 N., R.27 W., Lincoln County, Hydrologic Unit 10200101, on downstream side of highway bridges 0.5 mi (0.8 km) and 2.5 mi (4.0 km), respectively, south of Brady and 18 mi (29 km) downstream from confluence of North Platte and South Platte Rivers.

DRAINAGE AREA.--56,200 mi² (145,600 km²), approximately, of which about 51,400 mi² (133,100 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--May to September 1937, May 1938 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1941(M). WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Two water-stage recorders. Datum of gage on north channel is 2,639.19 ft (804.425 m) and on south channel, 2,641.66 ft (805.178 m) above mean sea level. No information available on gages operated by State engineer prior to Nov. 10, 1938. Nov. 10, 1938 to Sept. 30, 1942, gage on north channel at datum 1 ft (0.3 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Tri-County main supply canal, capacity, about 2,000 ft³/s (56.6 m³/s), diverts 18 mi (29 km) above station; diversion started Nov. 26, 1940. River flows in two channels for which separate records are computed; figures given herein represent combined discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,600 ft³/s (527 m³/s) May 18, 1973; no flow Aug. 22-28, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,850 ft³/s (80.7 m³/s) July 11; minimum daily, 88 ft³/s (2.49 m³/s) Jan. 12,13,16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	125	138	114	118	135	206	246	1710	1170	1590	169
2	115	131	140	110	120	150	200	268	734	1340	1610	160
3	116	135	136	110	122	113	202	320	315	1440	1570	162
4	111	129	136	112	123	138	208	323	278	1630	1570	159
5	110	123	139	108	123	171	213	291	285	1600	1440	152
6	129	123	137	108	127	166	203	262	226	1710	1520	141
7	137	121	134	106	128	150	192	255	211	1850	1440	139
8	131	115	130	98	140	163	184	248	199	2200	1150	135
9	128	124	126	98	148	168	185	238	186	2250	944	131
10	122	124	121	96	160	161	184	222	175	2730	743	121
11	119	127	116	92	172	199	179	213	156	2830	683	121
12	119	127	121	88	183	171	188	201	182	2420	696	129
13	119	122	117	88	193	234	200	198	159	2040	570	125
14	115	116	126	90	198	392	279	192	144	1720	529	123
15	115	114	132	92	195	335	680	191	187	1650	563	123
16	115	112	134	88	195	384	978	185	140	1660	478	126
17	118	110	136	90	202	379	683	183	161	1640	439	130
18	121	108	136	92	175	329	438	177	167	1620	361	126
19	121	108	136	92	156	318	346	183	191	1650	331	123
20	121	108	110	100	148	292	777	179	179	1640	305	123
21	121	111	132	110	140	287	1040	384	159	1750	296	125
22	122	120	134	120	131	268	667	550	168	1900	291	119
23	123	129	132	128	147	259	396	412	189	1860	232	122
24	125	111	140	128	147	246	321	330	167	1780	178	119
25	125	117	138	126	147	234	290	292	142	1700	211	116
26	125	111	138	126	146	222	275	293	128	1590	178	116
27	125	106	138	126	139	217	263	266	129	1620	171	119
28	125	110	138	104	136	246	258	241	162	1690	216	166
29	134	130	132	104	---	296	268	225	486	1610	237	234
30	134	130	125	108	---	288	260	302	849	1620	182	218
31	128	---	118	112	---	229	---	796	---	1560	156	---
TOTAL	3785	3577	4066	3264	4275	7336	10763	8634	8400	55470	20880	4152
MEAN	122	119	131	105	153	237	359	279	280	1789	674	138
MAX	137	135	140	128	202	392	1040	796	1710	2830	1610	234
MIN	110	106	110	88	118	113	179	177	128	1170	156	116
AC-FT	7510	7090	8060	6470	8480	14550	21350	17130	16660	110000	41420	8240

CAL YR 1976 TOTAL 137128 MEAN 375 MAX 1780 MIN 96 AC-FT 272000
WTR YR 1977 TOTAL 134602 MEAN 369 MAX 2830 MIN 88 AC-FT 267000

06766500 PLATTE RIVER NEAR COZAD, NE

LOCATION.--North Channel gage: Lat 40°50'08", long 99°59'13" in S1/2 sec.18, T.10 N., R.23 W., Dawson County, Hydrologic Unit 10200101, on left bank 30 ft (9 m) upstream from highway bridge, 1.5 mi (2.4 km) south of Cozad. South Channel gage: Lat 40°49'47", long 99°59'18" in S1/2 sec.18, T.10 N, R23 W., Dawson County, on downstream side of highway bridge, 1.5 mi (2.4 km) south of Cozad. Prior to June 16, north channel gage on downstream side of highway bridge 30 ft (9 m) downstream.

DRAINAGE AREA.--56,500 mi² (146,300 km²), approximately, of which about 51,700 mi² (133,900 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--July to September 1932, May 1937 to current year (prior to April 1939, irrigation seasons only). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Two water-stage recorders. Datum of gage on south channel is 2,473.07 ft (753.792 m) and on north channel, 2,475.72 ft (754.599 m) above mean sea level (Nebraska Department of Roads bench mark). May 11, 1976 to June 16, 1977, north channel gage on downstream side of highway bridge 30 ft (9 m) downstream at same datum. See WSP 2118 for history of changes prior to May 10, 1966. May 10, 1966 to May 10, 1976 at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. River flows in two channels for which separate records are computed; figures given herein represent combined discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft³/s (521 m³/s) May 29, 1973; no flow at times in 1937-40.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,590 ft³/s (73.3 m³/s) May 21; minimum daily, 33 ft³/s (0.93 m³/s) June 18,30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	222	218	210	190	208	365	451	758	34	45	87
2	107	222	223	210	209	218	400	447	1280	35	92	54
3	102	222	196	200	239	242	400	548	732	37	79	57
4	133	222	205	185	244	206	409	526	418	39	88	46
5	178	222	214	185	239	209	384	569	312	53	115	42
6	214	222	209	180	229	220	356	465	234	45	110	36
7	247	222	205	181	239	232	284	469	170	69	138	34
8	265	222	190	180	241	229	275	448	144	116	116	36
9	253	222	201	180	247	238	291	372	117	319	81	43
10	235	225	205	185	259	257	294	294	76	524	80	64
11	226	222	210	190	269	336	270	253	63	872	144	54
12	230	222	212	190	283	302	276	194	61	1070	152	60
13	227	209	218	191	290	292	278	173	54	776	109	77
14	227	200	227	171	303	313	326	180	50	459	76	102
15	215	215	230	160	291	447	498	200	41	186	77	134
16	209	221	233	164	294	482	984	180	37	112	156	124
17	210	233	248	165	294	543	1200	151	36	108	89	147
18	205	233	239	169	280	537	928	143	33	71	63	162
19	192	221	224	170	257	507	791	174	34	42	56	168
20	197	215	210	170	236	461	1000	150	37	39	74	162
21	194	200	150	190	239	493	1400	1270	35	39	92	159
22	197	196	185	210	254	408	1340	1730	36	81	100	159
23	200	194	190	260	263	352	1020	973	42	187	89	159
24	203	212	195	260	253	327	821	751	37	184	71	156
25	203	220	200	263	241	314	709	580	36	120	92	147
26	206	222	230	248	229	309	618	518	37	84	88	147
27	213	147	245	263	217	289	556	446	43	42	74	147
28	213	180	245	234	208	316	512	358	36	48	51	151
29	222	198	227	209	---	432	457	299	36	76	48	173
30	228	208	209	209	---	445	451	309	33	55	61	227
31	225	---	150	199	---	404	---	384	---	47	104	---
TOTAL	6283	6391	6543	6181	7037	10568	17891	14005	5058	5969	2810	3314
MEAN	203	213	211	199	251	341	596	452	169	193	90.6	110
MAX	265	233	248	263	303	543	1400	1730	1280	1070	156	227
MIN	102	147	150	160	190	206	270	143	33	34	45	34
AC-FT	12460	12680	12980	12260	13960	20960	35490	27780	10030	11840	5570	6570

CAL YR 1976 TOTAL 74307 MEAN 203 MAX 553 MIN 38 AC-FT 147400
WTR YR 1977 TOTAL 92050 MEAN 252 MAX 1730 MIN 33 AC-FT 182600

06768000 PLATTE RIVER NEAR OVERTON, NE

LOCATION.--Lat 40°40'57", long 99°32'19", in NW1/4NE1/4 sec.12, T.8 N., R.20 W., Dawson County, Hydrologic Unit 10200101, on left bank 600 ft (183 m) downstream from county highway bridge, 4 mi (6 km) south of Overton and 4 mi (6 km) downstream from Plum Creek.

DRAINAGE AREA.--57,700 mi² (149,400 km²), approximately, of which about 52,900 mi² (137,000 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July to September 1914 (gage heights only), October 1914 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "near Elm Creek" 1914-15.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,298.83 ft (700.683 m) above mean sea level. July 1914 to October 1917 nonrecording gages at site 8 mi (13 km) downstream at different datum. June 1918 to Sept. 12, 1928, nonrecording gage at site 600 ft (180 m) upstream (south channel only) at datum 3.0 ft (0.91 m) higher. Sept. 13, 1928, to Sept. 30, 1930, nonrecording gage and Oct. 1, 1930, to Sept. 30, 1968, water-stage recorder, at site 600 ft (180 m) upstream (south channel only) at datum 1.0 ft (0.30 m) higher. Oct. 1, 1968 to Feb. 3, 1976 water-stage recorder on south channel at site 600 ft (180 m) upstream at datum 1.0 ft (0.30 m) higher, and Feb. 4 to June 2, 1976 (south channel gage discontinued) at present datum. Oct. 1, 1968, to July 10, 1974, north channel gage at site 600 ft (180 m) upstream at datum 1.0 ft (0.30 m) higher and July 11, 1974 to June 1, 1976 at same datum.

REMARKS.--Records fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,600 ft³/s (1,060 m³/s) June 5, 1935, gage height, 6.25 ft (1.905 m) south channel; maximum gage height, 6.43 ft (1.960 m) May 15, 1973, north channel, datum then in use; no flow at times in 1919, 1922, 1925, 1927-28, 1930-41.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,890 ft³/s (167 m³/s) May 22, gage height, 3.64 ft (1.109 m); maximum gage height, 4.41 ft (1.344 m) Jan. 16, backwater from ice; minimum daily discharge, 134 ft³/s (3.79 m³/s) July 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	696	1090	1130	950	1280	1200	1910	1390	1510	199	199	696
2	675	989	1190	1050	1220	1080	2000	1400	2080	199	226	740
3	794	1050	1250	1200	1270	1000	1850	1290	2530	191	243	692
4	890	1000	1250	1350	1160	1000	1850	1330	2020	163	256	741
5	904	1030	1330	1400	1390	975	1910	1250	1400	148	269	805
6	1190	989	1330	1430	1220	1090	1910	1280	1050	138	353	880
7	1250	1030	1370	1400	1250	1160	1950	1320	855	134	480	898
8	1060	1090	1350	1250	1300	961	1890	1390	729	155	692	927
9	1050	1060	1280	1150	1250	1140	1910	1300	608	183	495	914
10	988	1000	1420	1050	1280	1170	1870	1090	554	384	362	995
11	932	1020	1370	1000	1330	1350	1810	975	494	553	247	1040
12	890	1030	1330	980	1390	1370	1400	975	486	751	258	1100
13	830	960	1420	960	1330	1440	1240	855	455	881	271	1100
14	866	1020	1400	980	1390	1370	1190	806	433	818	251	1050
15	618	1090	1390	980	1280	1490	1370	1170	405	677	239	1030
16	794	1140	1510	990	1350	1630	1830	1320	378	486	248	1040
17	770	1160	1490	1000	1280	1710	2290	1130	334	365	308	989
18	782	1030	1390	1000	1270	1910	2660	932	307	307	262	980
19	806	988	1230	1040	1420	2040	2730	1030	302	236	218	938
20	893	988	1320	1060	1480	1970	3170	1020	302	208	194	905
21	961	1050	1230	1080	1400	2060	3510	1930	329	241	275	932
22	975	1080	1230	1100	1350	2000	3920	4710	346	191	379	883
23	893	988	1220	1280	1350	1710	3820	3950	332	204	444	872
24	975	1080	1350	1320	1350	1570	3510	2970	329	270	566	850
25	961	1050	1320	1270	1300	1400	3090	2290	411	296	622	881
26	946	1160	1440	1230	1390	1590	2370	1830	478	291	697	923
27	932	1020	1480	1160	1270	1590	1870	1320	433	260	706	930
28	1030	1030	1400	1250	1280	1850	1750	1060	296	241	640	919
29	1020	1170	1480	1200	---	1730	1590	946	265	217	664	1020
30	1050	1130	860	1300	---	1830	1650	1420	222	222	686	991
31	989	---	880	1300	---	1890	---	1510	---	204	671	---
TOTAL	28410	31512	40640	35710	36830	46276	65820	47089	20673	9813	12421	27661
MEAN	916	1050	1311	1152	1315	1493	2194	1519	689	317	401	922
MAX	1250	1170	1510	1430	1480	2060	3920	4710	2530	881	706	1100
MIN	618	960	860	950	1160	961	1190	806	222	134	194	692
AC-FT	56350	62500	80610	70830	73050	91790	130600	93400	41000	19460	24640	54870

CAL YR 1976 TOTAL 391544 MEAN 1070 MAX 2280 MIN 133 AC-FT 776600
WTR YR 1977 TOTAL 402855 MEAN 1104 MAX 4710 MIN 134 AC-FT 799100

06768000 PLATTE RIVER NEAR OVERTON, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952, 1958 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1958 to current year.
WATER TEMPERATURES: January 1958 to current year.

INSTRUMENTATION.-- Temperature recorder from April 5, 1967 to August 2, 1976 (discontinued).

REMARKS.--The south channel was dammed and water diverted into the north channel on about September 15, 1976 for the purposes of bridge construction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,480 micromhos May 15, 1966 (south chan.); minimum daily, 214 micromhos July 23, 1968 (south chan.).
WATER TEMPERATURES: Maximum, 37.0°C June 13, 1959 (south chan.), July 9, 1960 (north chan.); minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 965 micromhos Sept. 3, 5; minimum daily, 390 micromhos July 27.
WATER TEMPERATURES: Maximum daily, 35.0°C July 6; minimum daily, 1.0°C Dec. 26, 27.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)
OCT 19...	1245	550	835	7.2	9.0	3	280	62	76	22
NOV 23...	1230	971	1020	7.1	2.0	3	290	69	80	22
DEC 21...	1530	1810	982	7.2	.0	5	280	63	76	21
JAN 24...	1345	1830	992	7.4	.0	6	280	72	79	21
FEB 22...	1255	2000	908	7.2	7.0	7	260	54	71	20
MAR 21...	1455	2510	808	7.1	8.0	40	260	71	73	19
APR 13...	1300	1660	722	7.2	16.0	7	280	63	76	21
MAY 17...	1300	1660	948	7.2	22.0	13	310	82	87	23
JUN 14...	1300	345	909	7.2	25.0	8	300	91	79	24
JUL 19...	1330	252	973	7.4	29.0	7	280	67	76	22
AUG 23...	1320	412	905	7.2	26.0	8	290	66	77	23
SEP 20...	1230	571	896	7.2	20.0	6	280	67	76	22

DATE	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED FLUORIDE (F) (MG/L) (00950)
OCT 19...	69	1.8	13	266	0	218	180	23	.5
NOV 23...	65	1.7	13	270	0	221	200	23	.5
DEC 21...	69	1.8	12	260	0	213	190	24	.5
JAN 24...	66	1.7	12	258	0	212	180	23	.5
FEB 22...	60	1.6	13	251	0	206	170	24	.5
MAR 21...	56	1.5	13	231	0	190	150	22	.5
APR 13...	65	1.7	14	260	0	210	180	22	.6
MAY 17...	72	1.8	15	280	0	230	210	24	.6
JUN 14...	73	1.8	15	250	0	210	230	24	.6
JUL 19...	86	2.2	15	260	0	210	210	30	.6
AUG 23...	85	2.1	15	270	0	220	210	24	.6
SEP 20...	76	2.0	14	260	0	210	210	24	.6

06768000 PLATTE RIVER NEAR OVERTON, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOLVED PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)
OCT									
19...	32	550	.75	817	.75	.02	130	20	40
NOV									
23...	33	579	.79	1920	2.0	.03	130	30	40
DEC									
21...	35	563	.77	2750	1.1	.03	120	10	10
JAN									
20...	34	549	.75	2710	1.3	.08	110	0	20
FEB									
22...	35	525	.71	2840	1.3	.08	100	20	10
MAR									
21...	35	487	.66	3300	1.1	.08	100	40	20
APR									
13...	33	544	.74	2400	.93	.04	90	0	10
MAY									
17...	33	610	.83	2730	1.2	.23	100	10	0
JUN									
14...	28	599	.81	558	.53	.03	120	20	10
JUL									
19...	30	604	.82	411	.51	.07	140	10	0
AUG									
23...	31	598	.81	665	.67	.07	140	20	0
SEP									
20...	33	586	.80	903	.52	.04	120	10	0

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	790	793	852	827	803	799	735	765	810	820	868	933
2	826	824	845	838	815	785	735	770	715	947	820	918
3	818	830	851	835	815	785	733	745	705	897	850	965
4	797	820	826	827	828	816	735	745	835	950	878	909
5	818	816	802	828	850	837	734	768	835	912	878	965
6	776	810	839	852	832	806	740	758	892	910	895	955
7	797	823	871	837	880	798	738	785	905	785	870	961
8	797	823	825	870	855	730	737	785	915	897	868	908
9	813	823	822	832	815	723	766	788	925	728	860	930
10	826	823	827	869	828	712	766	815	930	838	885	938
11	826	825	828	874	805	712	768	828	930	828	890	908
12	818	869	822	877	826	800	774	833	925	764	880	915
13	810	808	830	823	753	846	780	828	925	728	868	925
14	816	808	839	888	774	805	755	845	922	728	879	925
15	826	868	793	885	725	849	768	775	955	818	895	915
16	823	818	784	895	796	768	690	752	945	798	878	930
17	828	820	776	892	795	745	585	815	925	830	850	925
18	829	820	863	888	819	735	635	725	955	890	898	935
19	836	823	878	813	820	698	705	695	965	838	910	878
20	776	812	869	817	812	705	688	572	968	838	880	855
21	815	832	868	855	812	760	683	542	915	793	900	868
22	824	832	868	851	828	800	675	608	908	825	900	868
23	818	830	855	852	828	790	695	577	918	849	880	818
24	830	823	868	857	825	790	758	655	885	838	910	865
25	834	823	789	822	832	775	763	798	895	818	758	860
26	815	905	796	827	835	780	764	706	945	648	883	860
27	812	905	800	845	845	768	765	700	955	390	930	858
28	811	905	782	849	845	750	755	665	968	478	919	858
29	828	950	781	848	---	768	755	594	948	580	929	848
30	807	960	820	899	---	770	778	585	965	677	925	848
31	815	---	840	907	---	770	---	598	---	652	927	---

06768000 PLATTE RIVER NEAR OVERTON, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	7.0	1.0	1.0	1.0	2.0	8.0	18.0	20.0	30.0	21.0	18.0
2	16.0	8.0	1.0	1.0	1.0	1.0	10.0	16.0	27.0	22.0	31.0	20.0
3	20.0	6.0	1.0	1.0	1.0	4.0	6.0	16.0	22.0	34.0	22.0	21.0
4	17.0	8.0	1.0	1.0	2.0	1.0	8.0	16.0	29.0	25.0	31.0	21.0
5	13.0	10.0	1.0	1.0	1.0	1.0	10.0	16.0	22.0	32.0	25.0	20.0
6	13.0	8.0	1.0	1.0	1.0	4.0	16.0	18.0	22.0	35.0	20.0	20.0
7	9.0	6.0	1.0	1.0	1.0	6.0	10.0	17.0	19.0	33.0	24.0	26.0
8	8.0	8.0	1.0	1.0	1.0	7.0	13.0	17.0	24.0	31.0	25.0	28.0
9	15.0	6.0	1.0	1.0	2.0	7.0	15.0	19.0	23.0	30.0	32.0	15.0
10	13.0	7.0	1.0	1.0	1.0	10.0	16.0	16.0	24.0	21.0	22.0	22.0
11	15.0	2.0	2.0	1.0	1.0	8.0	15.0	19.0	28.0	23.0	25.0	25.0
12	15.0	2.0	2.0	1.0	1.0	5.0	19.0	15.0	23.5	29.0	20.0	20.0
13	20.0	0.0	1.0	1.0	1.0	6.0	12.0	22.0	22.0	30.0	29.0	15.0
14	19.0	1.0	2.0	1.0	1.0	7.0	20.0	18.0	22.0	28.0	21.0	15.0
15	14.0	1.0	1.0	1.0	1.0	7.0	15.0	18.0	23.5	24.0	22.0	15.0
16	14.0	4.0	2.0	1.0	1.0	8.0	15.0	18.0	26.0	24.0	22.0	25.0
17	9.0	9.0	3.0	1.0	0.0	11.0	15.0	16.0	22.0	24.0	18.0	26.0
18	9.0	6.0	2.0	1.0	2.0	6.0	15.0	24.0	21.0	25.0	25.0	24.0
19	6.0	9.0	1.0	1.0	2.0	5.0	15.0	24.0	22.0	23.0	26.0	15.0
20	12.0	7.0	1.0	2.0	5.0	2.0	10.0	18.0	21.0	32.0	21.0	25.0
21	13.0	1.0	1.0	1.0	10.0	3.0	9.0	19.0	21.5	23.0	20.0	23.0
22	12.0	1.0	1.0	1.0	5.0	12.0	11.0	17.0	21.0	30.0	21.0	16.0
23	11.0	3.0	2.0	2.0	2.0	5.0	13.0	18.0	22.5	25.0	20.0	19.0
24	6.0	7.0	1.0	1.0	2.0	8.0	12.0	19.0	25.5	26.0	21.0	21.0
25	4.0	6.0	2.0	1.0	0.0	16.0	13.0	19.0	30.0	29.0	29.0	24.0
26	6.0	0.0	2.0	1.0	10.0	13.0	16.0	22.0	23.0	21.0	23.0	14.0
27	8.0	0.0	3.0	1.0	5.0	12.0	23.0	24.0	25.0	27.0	22.0	23.0
28	9.0	1.0	2.0	1.0	2.0	14.0	23.0	22.0	30.0	31.0	23.0	20.0
29	4.0	2.0	1.0	1.0	---	12.0	17.0	20.0	30.0	32.0	18.0	22.0
30	12.0	1.0	1.0	1.0	---	8.0	15.0	18.0	20.0	22.0	21.0	22.0
31	6.0	---	1.0	1.0	---	9.0	---	19.0	---	22.0	21.0	---

06768015 SPRING CREEK BELOW LEXINGTON, NE

LOCATION.--Lat 40°45'13", long 99°40'22", in NW1/4SW1/4NW1/4 sec.13, T.9 N., R.21 W., Dawson County, Hydrologic Unit 10200101, at bridge on county road 0.5 miles south of U.S. Highway 30, 0.1 miles downstream from Dawson County Drain No. 401, and 3.2 miles southeast of Lexington.

PERIOD OF RECORD.--Water year 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)
OCT										
21...	1200	2.2	1300	7.7	6.0	3	11.7	5.0	--	1400
NOV										
23...	1245	5.0	1880	7.7	1.0	5	11.3	20	14000	2400
DEC										
21...	1115	4.0	1790	7.4	.0	6	3.7	10	130000	--
JAN										
18...	1330	5.0	2100	7.3	.0	15	.8	44	620000	60000
FEB										
16...	1245	2.2	1260	7.3	2.0	6	8.7	8.6	66000	860
MAR										
15...	1245	25	920	7.8	4.0	85	12.1	18	35000	2700
APR										
26...	1115	13	1290	8.1	15.0	15	11.7	5.8	20600	1300
MAY										
24...	1300	200	760	7.4	21.0	200	4.5	9.0	22000	1600
JUN										
21...	1330	31	1360	7.7	19.0	200	5.1	9.0	>200000	--
JUL										
19...	1215	25	1020	8.0	25.0	70	7.4	6.4	40000	7200
AUG										
17...	1200	80	940	8.0	20.0	60	8.1	14	106000	--
SEP										
27...	1130	6.6	1220	8.1	15.0	10	11.0	9.2	96000	--

DATE	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)
OCT										
21...	--	73	--	1.12	1.1	.70	1.8	3.1	1.2	1.2
NOV										
23...	--	86	1150	1.56	1.2	.60	1.8	6.2	1.6	--
DEC										
21...	--	110	965	1.31	7.9	.70	8.6	9.9	2.7	--
JAN										
18...	--	290	--	1.62	17	.00	17	17	7.3	4.8
FEB										
16...	--	170	858	1.17	6.3	1.3	7.6	8.7	3.3	--
MAR										
15...	--	67	688	.94	.02	.49	.51	.63	1.5	--
APR										
26...	--	50	--	1.21	.22	.71	.93	1.6	.73	.64
MAY										
24...	--	28	601	.82	.67	2.1	2.8	4.2	1.5	--
JUN										
21...	--	55	981	1.33	.73	3.7	4.4	8.2	1.8	--
JUL										
19...	--	31	--	.97	.09	1.4	1.5	3.3	.55	.50
AUG										
17...	6600	39	729	.99	.06	2.1	2.2	4.4	.73	--
SEP										
27...	6000	56	865	1.18	.64	.13	.77	.93	.56	--

06768015 SPRING CREEK BELOW LEXINGTON, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)
OCT 21...	1200	17	430	94	120	31	93	2.0	28	406
JAN 18...	1330	70	450	110	130	31	220	4.5	31	414
APR 26...	1115	13	500	130	130	42	97	1.9	39	450
JUL 19...	1215	35	330	64	91	26	100	2.4	24	330

DATE	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)
OCT 21...	0	333	230	.4	45	821	--	190	--	--
JAN 18...	0	340	210	.7	68	1190	9	360	5	20
APR 26...	0	370	280	.6	29	890	--	180	--	--
JUL 19...	0	270	240	.6	39	715	12	170	6	0

DATE	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUS-PENDED MERCURY (HG) (UG/L) (71895)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)
OCT 21...	--	50	--	30	--	--	--	--	--	--
JAN 18...	12	110	21	90	.5	.0	.2	2	0	60
APR 26...	--	20	--	80	--	--	--	--	--	--
JUL 19...	7	50	28	140	--	.0	.3	3	0	50

06770000 PLATTE RIVER NEAR ODESSA, NE

LOCATION.--Lat 40°39'55", long 99°15'20", in E1/2 sec.16, T.8 N., R.17 W., Buffalo-Phelps County line, Hydrologic Unit 10200101, near right bank on downstream side of pier of highway bridge, 2.5 mi (4.0 km) south of Odessa and 5 mi (8 km) downstream from Elm Creek.

DRAINAGE AREA.--58,100 mi² (150,500 km²), approximately, of which about 53,300 mi² (138,000 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--March 1937 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,197.07 ft (669.667 m) above mean sea level. Prior to Oct. 7, 1938, nonrecording gage and Oct. 7, 1938, to Sept. 30, 1942, water-stage recorder, at present site at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,700 ft³/s (643 m³/s) June 24, 1947, gage height, 5.52 ft (1.682 m); maximum gage height, 5.89 ft (1.795 m) Mar. 5, 1952, backwater from ice; no flow for periods in each year prior to 1947 and in 1953-57, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 6,000 ft³/s (170 m³/s) May 23, from graph based on gage readings; maximum gage height, 5.30 ft (1.615 m) Dec. 6, backwater from ice; minimum daily discharge, 26 ft³/s (0.74 m³/s) Aug. 1-3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	462	594	800	1200	1160	1220	1630	1150	1260	42	26	402
2	636	552	880	1160	1180	1150	1630	1190	1430	48	26	426
3	566	594	880	1160	1160	1260	1700	1400	1880	60	26	498
4	650	608	860	1180	1120	1170	1560	1240	1900	60	48	450
5	692	580	840	1210	1120	1010	1430	1150	1400	48	60	390
6	706	622	870	1270	1120	998	1410	1110	886	30	72	426
7	806	664	910	1300	1140	1130	1360	1150	734	42	72	426
8	790	510	980	1240	1140	1130	1320	1150	552	48	154	538
9	918	552	1150	1180	1140	1190	1430	1130	450	54	250	608
10	822	608	1400	1110	1160	1260	1410	1030	414	130	210	622
11	580	636	1600	1080	1160	1600	1410	966	414	220	138	636
12	510	630	1700	1040	1160	1900	1380	966	462	342	114	580
13	450	680	1800	1010	1160	1630	1130	934	378	552	114	524
14	462	760	1800	1010	1160	1510	1060	902	318	510	114	486
15	538	806	1700	1020	1170	1360	1060	934	260	366	122	474
16	566	822	1600	1030	1090	1430	1220	1200	230	240	138	636
17	762	918	1400	1050	1080	1470	1410	1030	240	154	122	748
18	720	950	1220	1000	1150	1410	1950	918	354	106	90	678
19	462	902	1110	1000	1300	1720	1720	790	318	106	78	608
20	650	902	1030	1000	1380	1770	2610	854	162	84	84	594
21	918	902	1200	1040	1320	1880	2670	1190	306	60	122	650
22	918	934	1320	1060	1340	1860	2610	3270	270	42	154	650
23	678	886	1340	1080	1430	1700	2800	4380	230	42	230	650
24	678	886	1400	1100	1340	1380	2750	3420	190	54	250	734
25	636	934	1400	1100	1300	1170	2530	2640	162	54	390	664
26	734	1010	1340	1120	1340	1110	2020	2020	130	54	498	566
27	918	966	1300	1160	1280	1240	1430	1320	98	48	474	566
28	790	720	1360	1100	1300	1470	1200	1010	54	54	438	580
29	734	720	1340	1100	---	1560	1320	854	54	48	390	664
30	692	730	1300	1120	---	1380	1240	1380	48	42	378	838
31	664	---	1250	1140	---	1410	---	1790	---	30	414	---
TOTAL	21108	22578	39080	34370	33900	43478	50400	44468	15584	3770	5796	17312
MEAN	681	753	1261	1109	1211	1403	1680	1434	519	122	187	577
MAX	918	1010	1800	1300	1430	1900	2800	4380	1900	552	498	838
MIN	450	510	800	1000	1080	998	1060	790	48	30	26	390
AC-FT	41870	44780	77520	68170	67240	86240	99970	88200	30910	7480	11500	34340

CAL YR 1976 TOTAL 325683.0 MEAN 890 MAX 2000 MIN 9.0 AC-FT 646000
WTR YR 1977 TOTAL 331844.0 MEAN 909 MAX 4380 MIN 26 AC-FT 658200

06770205 PLATTE RIVER (NORTH CHANNEL) NEAR KEARNEY, NE

LOCATION.--Lat 40°40'30", long 99°00'24", in SW1/4NW1/4SW1/4 sec.10, T.8 N., R.15 W., Buffalo County, Hydrologic Unit 10200101, on county road 0.2 miles north of Interstate Highway I-80 (no access) and about 4.5 miles southeast of Kearney.

PERIOD OF RECORD.--Water year 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)
OCT 21...	0915	129	900	7.5	5.0	10	10.7	6.8	45000	510
NOV 23...	1000	12	1170	7.4	6.6	3	8.0	11	240000	970
DEC 21...	0845	14	1220	7.4	8.0	2	6.2	5.0	100000	--
JAN 18...	1045	13	1200	7.5	3.0	2	7.6	15	77000	3000
FEB 16...	0930	9.6	1280	7.2	5.0	4	6.4	5.1	420000	2700
MAR 15...	0915	12	1280	7.4	7.0	6	9.1	9.4	280000	380
APR 26...	0900	190	760	8.1	15.0	20	9.5	5.8	26000	750
MAY 24...	1030	230	510	7.7	21.0	300	7.9	16	280000	1150
JUN 21...	1045	400	500	8.0	20.0	250	7.9	11	>200000	--
JUL 19...	0930	156	770	8.0	26.0	35	7.4	3.2	270000	2400
AUG 17...	0900	190	760	8.1	20.0	35	8.5	10	250000	--
SEP 27...	0845	220	750	7.9	18.0	20	8.9	10	180000	--

DATE	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)
OCT 21...	--	27	--	.75	.12	.44	.56	1.4	.20	.16
NOV 23...	--	63	713	.97	1.5	.30	1.8	3.7	1.5	--
DEC 21...	--	94	799	1.09	2.8	1.2	4.0	7.1	2.2	--
JAN 18...	--	86	--	1.07	4.9	--	--	--	2.7	2.7
FEB 16...	--	98	782	1.06	5.2	.00	5.2	6.6	2.2	--
MAR 15...	--	76	934	1.27	1.8	.40	2.2	4.8	1.5	--
APR 26...	--	25	--	.79	.01	.82	.83	1.5	.32	.28
MAY 24...	--	19	369	.50	.46	2.8	3.3	4.4	1.3	--
JUN 21...	--	18	348	.47	.17	2.3	2.5	3.1	.12	--
JUL 19...	--	33	--	.85	.10	1.1	1.2	1.6	.31	.28
AUG 17...	2400	26	584	.79	.03	1.3	1.3	1.9	.28	--
SEP 27...	2000	33	557	.76	.02	.97	.99	1.3	.18	--

06770205 PLATTE RIVER (NORTH CHANNEL) NEAR KEARNEY, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)
OCT										
21...	0915	4	250	51	67	21	82	2.2	12	247
JAN										
18...	1045	14	320	77	85	26	140	3.4	16	295
APR										
26...	0900	13	290	72	78	22	74	1.9	14	260
JUL										
19...	0930	12	290	67	76	24	89	2.3	15	270

DATE	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)
OCT										
21...	0	203	190	.5	29	551	--	140	--	--
JAN										
18...	0	242	260	.8	27	787	2	260	2	0
APR										
26...	0	210	210	.6	28	580	--	120	--	--
JUL										
19...	0	220	220	.6	31	622	6	140	2	0

DATE	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUS-PENDED MERCURY (HG) (UG/L) (71895)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)
OCT										
21...	--	20	--	90	--	--	--	--	--	--
JAN										
18...	0	40	8	250	.3	.3	.0	1	0	20
APR										
26...	--	20	--	10	--	--	--	--	--	--
JUL										
19...	1	30	8	10	--	.0	.2	2	0	20

06770500 PLATTE RIVER NEAR GRAND ISLAND, NE

LOCATION.--Lat 40°52'28", long 98°16'54", in SW1/4SW1/4 sec.31, T.11 N., R.8 W., Merrick County, Hydrologic Unit 10200101, on left bank 110 ft (34 m) downstream from bridge on U.S. Highway 34, 2 mi (3 km) upstream from Burlington Northern Inc. bridge, and 5 mi (8 km) southeast of Grand Island.

DRAINAGE AREA.--58,800 mi² (152,300 km²), approximately, of which about 54,000 mi² (139,900 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to current year.

REVISED RECORDS.--WSP 956: 1935. WSP 1390: 1942. WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,831.89 ft (558.360 m) above mean sea level (Nebraska Department of Highways bench mark). Prior to Oct. 23, 1933, nonrecording gage at bridge 30 ft (9 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s) June 6, 1935, gage height, 5.99 ft (1.826 m), from rating curve extended above 18,000 ft³/s (510 m³/s); maximum gage height, 6.16 ft (1.878 m) Mar. 27, 1960, backwater from ice; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,550 ft³/s (129 m³/s) May 24, gage height, 3.45 ft (1.052 m); maximum gage height recorded, 3.98 ft (1.213 m) Jan. 25, backwater from ice, but may have been higher during periods of no gage-height record, Jan. 12-24, Jan. 29 to Feb. 2, Feb. 6-16; minimum daily discharge, 31 ft³/s (0.88 m³/s) Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	635	793	340	380	920	1220	1950	1590	2100	278	38	623
2	596	741	460	225	960	1190	2520	1600	1790	222	34	908
3	597	749	580	410	1100	1160	2750	1710	1660	211	31	902
4	615	750	720	680	1160	1120	2490	1810	1810	195	69	774
5	612	788	920	820	1100	1160	2260	1640	1950	151	84	713
6	702	795	1000	960	1060	1100	2120	1540	1710	115	128	697
7	823	772	900	1000	1100	1070	2020	1500	1390	93	165	685
8	923	785	800	1000	1200	1090	1960	1750	1110	89	135	656
9	950	760	840	800	1300	1090	1930	1850	987	70	147	687
10	879	756	860	840	1450	1080	1780	1940	843	115	169	716
11	869	795	940	940	1500	1260	1750	1680	738	157	185	727
12	795	745	980	1000	1450	1510	1760	1470	729	175	209	1580
13	723	843	980	1160	1550	1790	1780	1320	747	220	178	1340
14	684	878	1100	1200	1300	1660	1800	1240	710	296	255	1130
15	645	951	1040	1040	1140	1630	1700	1140	664	429	299	964
16	673	1080	1250	740	1250	1590	1710	1040	614	484	276	859
17	662	1020	1200	760	1450	1610	1730	1140	620	430	173	777
18	640	905	1250	820	1450	1610	1820	1190	589	306	168	728
19	696	885	1100	900	1400	1820	2090	1210	543	188	169	712
20	713	862	1250	1000	1450	1870	3060	1110	507	157	193	700
21	690	838	1250	1100	1550	1830	3900	1460	590	163	262	675
22	708	817	1060	1060	1550	1800	3660	1680	1270	138	279	662
23	825	849	1100	1200	1590	1890	3430	2170	1270	114	307	674
24	796	916	1160	1250	1370	1840	3430	3940	1010	100	306	648
25	758	887	1200	1200	1230	1630	3100	3660	733	87	432	652
26	786	880	1250	1080	1210	1430	2760	3100	604	81	596	659
27	784	660	1300	1060	1220	1300	2540	2980	493	73	568	708
28	806	330	1300	840	1230	1520	2070	2350	481	65	592	721
29	759	290	1250	860	---	1920	1770	1890	440	60	571	739
30	868	280	720	860	---	1980	1660	1840	370	54	611	754
31	838	---	440	900	---	1930	---	1790	---	46	686	---
TOTAL	23050	23400	30540	28085	36240	46700	69300	56330	29072	5362	8315	23770
MEAN	744	780	985	906	1294	1506	2310	1817	969	173	268	792
MAX	950	1080	1300	1250	1590	1980	3900	3940	2100	484	686	1580
MIN	596	280	340	225	920	1070	1660	1040	370	46	31	623
AC-FT	45720	46410	60580	55710	71880	92630	137500	111700	57660	10640	16490	47150

CAL YR 1976 TOTAL 334082.52 MEAN 913 MAX 3940 MIN .00 AC-FT 662700
WTR YR 1977 TOTAL 380164.00 MEAN 1042 MAX 3940 MIN 31 AC-FT 754100

06770500 PLATTE RIVER NEAR GRAND ISLAND, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,050 micromhos Jan. 12, 1973; minimum daily, 575 micromhos May 24, 1977.
WATER TEMPERATURES: Maximum, 34.5°C Jan. 23, 1977; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,050 micromhos Jan. 23; minimum daily, 575 micromhos May 24.
WATER TEMPERATURES: Maximum, 24.0°C July 24; minimum, 0.5°C Jan. 8.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (JTU) (00070)	DIS-SOLVED OXYGEN (MG/L) (00300)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLI-FORM (COL. PER 100 ML) (31616)	FECAL COLI-FORM .7UM-MF (COL./ 100 ML) (31625)
OCT											
14...	1110	642	748	8.1	14.5	9	20	9.4	9.8	240	--
NOV											
24...	0930	918	787	8.2	1.0	3	15	12.6	--	--	33
DEC											
14...	0950	1140	768	7.6	1.0	8	5	11.3	3.6	--	1
JAN											
26...	1110	1100	748	7.9	.0	6	7	10.9	3.8	--	16
FEB											
02...	1310	956	853	8.3	.5	5	6	11.6	10	--	37
MAR											
17...	1125	1600	775	8.1	10.0	9	30	11.7	6.2	--	60
APR											
06...	0910	2080	811	8.1	7.5	12	20	12.3	5.5	--	450
MAY											
18...	0920	1170	747	8.1	21.0	50	90	8.6	14	--	83200
JUN											
23...	1000	1280	769	8.2	23.5	25	95	8.5	15	--	83000
JUL											
21...	0940	170	795	8.1	21.5	10	10	8.9	9.8	--	1100
AUG											
03...	0955	30	839	8.0	22.0	6	7	9.1	10	--	380
SEP											
21...	0920	152	814	7.8	18.0	11	25	10.2	7.5	--	62

DATE	STREP-TOCOCCI (COL-ONIES PER 100 ML) (31679)	FECAL STREP-TOCOCCI KF AGAR (COL. PER 100 ML) (31673)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)
OCT											
14...	120	--	250	56	65	21	80	2.2	13	235	0
NOV											
24...	176	--	240	58	66	19	75	2.1	11	225	0
DEC											
14...	61	--	250	65	69	20	74	2.0	11	225	0
JAN											
26...	26	--	280	74	76	21	76	2.0	11	247	0
FEB											
02...	36	--	280	70	74	22	80	2.1	11	251	0
MAR											
17...	1300	--	270	79	73	21	73	1.9	12	231	0
APR											
06...	3200	--	280	88	76	21	72	1.9	12	230	0
MAY											
18...	420	--	250	81	70	19	67	1.8	13	210	0
JUN											
23...	3100	--	250	86	67	20	73	2.0	13	200	0
JUL											
21...	--	2700	240	66	59	22	87	2.5	14	210	0
AUG											
03...	--	2300	270	83	71	23	88	2.3	13	230	0
SEP											
21...	--	300	250	73	67	21	90	2.5	13	220	0

06770500 PLATTE RIVER NEAR GRAND ISLAND, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED FLUORIDE (F) (MG/L) (00950)	DISSOLVED SILICA (SIO2) (MG/L) (00955)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	DISSOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)
OCT 14...	193	190	29	.6	27	542	.74	969	.17	.02
NOV 24...	185	200	24	.4	25	531	.72	1320	.08	.00
DEC 14...	185	210	23	.5	27	545	.74	1600	.52	.00
JAN 26...	203	190	24	.5	27	547	.74	1630	.80	.03
FEB 02...	206	220	27	.6	29	587	.80	1520	.73	.01
MAR 17...	189	210	28	.5	27	559	.76	2010	.86	.08
APR 06...	190	220	27	.6	27	569	.77	3200	.72	.01
MAY 18...	170	200	28	.5	21	522	.71	1650	.86	.04
JUN 23...	160	200	27	.5	19	518	.70	1790	.42	.09
JUL 21...	170	220	30	.5	26	562	.76	258	.01	.01
AUG 03...	190	220	30	.5	23	582	.79	47.1	.03	.00
SEP 21...	180	220	32	.6	24	576	.78	234	.03	.01

DATE	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED-PHOSPHORUS (P) (MG/L) (00666)	DISSOLVED ALUMINUM (AL) (UG/L) (01106)	DISSOLVED BORON (B) (UG/L) (01020)	DISSOLVED IRON (FE) (UG/L) (01046)	DISSOLVED MANGANESE (MN) (UG/L) (01056)	DISSOLVED VANADIUM (V) (UG/L) (01085)
OCT 14...	.84	.86	1.0	.19	.05	30	140	10	10	6.0
NOV 24...	.79	.79	.87	.12	.08	50	110	10	0	4.3
DEC 14...	.69	.69	1.2	.07	.05	10	120	10	20	3.2
JAN 26...	.39	.42	1.2	.10	.07	0	120	0	10	3.0
FEB 02...	.26	.27	1.0	.09	.07	10	130	10	0	3.0
MAR 17...	.89	.97	1.8	.22	.09	10	120	20	20	4.6
APR 06...	.60	.61	1.3	.12	.07	10	120	30	10	4.5
MAY 18...	3.0	3.0	3.9	.03	.18	20	160	20	0	6.0
JUN 23...	1.4	1.5	1.9	.38	.17	20	120	70	0	4.4
JUL 21...	.66	.67	.68	.10	.02	20	140	20	0	2.2
AUG 03...	.78	.78	.81	.13	.10	20	140	40	0	.7
SEP 21...	.77	.78	.81	.14	.06	10	140	10	10	5.1

DATE	TIME	DISSOLVED ARSENIC (AS) (UG/L) (01000)	DISSOLVED CADMIUM (CD) (UG/L) (01025)	DISSOLVED CHROMIUM (CR) (UG/L) (01030)	DISSOLVED COPPER (CU) (UG/L) (01040)	DISSOLVED LEAD (PB) (UG/L) (01049)	TOTAL MERCURY (HG) (UG/L) (71900)	SUSPENDED MERCURY (HG) (UG/L) (71895)	DISSOLVED MERCURY (HG) (UG/L) (71890)	DISSOLVED SELENIUM (SE) (UG/L) (01145)	DISSOLVED SILVER (AG) (UG/L) (01075)	DISSOLVED ZINC (ZN) (UG/L) (01090)
FEB 02...	1310	4	1	0	2	3	.1	.0	.0	3	0	10
MAR 17...	1125	5	1	0	3	7	.0	--	.0	2	0	20
APR 06...	0910	2	3	0	3	17	--	--	.0	2	0	10
MAY 18...	0920	5	1	0	1	13	.0	--	.0	3	0	6
JUN 23...	1000	5	1	0	2	10	.4	--	.0	1	0	4
AUG 03...	0955	4	2	0	1	10	.0	.0	.0	3	0	10
SEP 21...	0920	4	0	0	1	1	.0	.0	.0	1	0	10

06770500 PLATTE RIVER NEAR GRAND ISLAND, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	840	805	905	970	855	770	829	837	735	835	825	868
2	840	811	905	998	858	788	790	859	732	820	872	858
3	849	818	907	998	868	805	790	818	782	840	857	848
4	849	813	875	958	770	785	848	757	818	850	730	877
5	860	813	875	961	807	770	870	835	798	850	749	870
6	837	811	875	971	816	822	875	804	865	865	790	863
7	805	811	875	970	777	822	887	875	870	861	808	868
8	795	811	885	908	858	855	840	815	884	869	838	878
9	805	818	876	938	792	798	860	815	865	816	847	855
10	820	813	876	970	770	795	875	835	865	761	838	868
11	820	811	875	970	787	798	875	804	855	730	875	855
12	820	852	758	975	784	793	870	892	855	845	860	720
13	826	688	758	935	768	795	865	907	818	860	870	858
14	829	752	755	925	755	840	865	915	832	870	860	875
15	840	792	755	915	756	800	865	910	875	790	785	878
16	840	798	758	905	755	823	798	896	875	840	838	887
17	840	811	763	900	755	845	845	885	885	854	869	883
18	860	825	880	865	750	825	835	813	890	865	868	880
19	887	833	880	1030	748	732	798	818	875	894	838	875
20	844	819	880	1030	744	735	720	835	858	910	815	878
21	840	820	880	1030	750	807	753	785	885	907	758	872
22	838	830	755	930	808	802	830	770	745	885	820	868
23	840	827	881	1050	817	818	819	815	780	882	782	848
24	829	817	880	920	758	825	850	575	858	882	847	868
25	829	811	878	930	812	848	845	638	885	891	729	865
26	825	807	881	932	818	842	867	735	875	830	787	867
27	825	808	815	930	818	843	880	733	865	857	747	867
28	818	1040	868	1030	808	820	880	785	880	897	687	857
29	818	1040	935	907	---	785	890	805	895	890	828	850
30	818	988	922	910	---	814	880	875	915	905	788	845
31	818	---	922	909	---	853	---	868	---	925	772	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	7.8	1.5	1.5	1.5	2.0	7.0	16.5	20.5	18.5	18.0	18.5
2	16.0	9.0	1.5	1.5	2.0	1.5	7.5	17.0	20.5	20.0	18.0	19.0
3	16.0	6.0	2.0	1.5	3.0	2.0	8.0	16.0	20.0	22.5	20.0	20.0
4	14.5	4.0	3.0	1.5	2.0	2.0	5.0	18.0	22.0	22.5	19.0	20.0
5	11.0	3.0	3.0	1.5	2.5	5.0	4.0	17.0	23.0	20.0	21.5	20.0
6	15.0	5.5	2.0	1.5	2.5	5.5	6.5	17.5	23.0	22.0	18.5	20.0
7	10.0	4.0	2.0	1.5	2.0	6.0	10.0	19.0	20.0	23.0	22.0	20.0
8	9.0	4.0	1.5	0.5	2.0	6.0	12.0	18.5	21.0	21.0	23.0	20.0
9	10.5	9.0	1.5	1.0	2.0	7.0	14.0	19.0	20.5	19.5	21.0	16.0
10	12.0	5.0	1.5	1.0	2.0	7.5	14.0	16.5	21.0	20.0	20.0	15.0
11	14.0	3.5	2.0	1.0	2.0	8.0	14.0	17.0	23.0	21.5	16.5	15.0
12	14.5	2.5	2.5	1.0	2.5	7.5	15.0	17.0	21.0	20.5	18.5	19.0
13	13.5	2.5	2.0	1.0	2.5	8.0	12.5	17.0	21.0	23.0	20.5	18.0
14	13.0	1.0	1.5	1.0	2.5	8.0	14.5	18.0	21.0	21.5	19.0	16.5
15	10.0	1.0	1.5	2.0	2.5	8.0	15.0	18.0	21.0	22.5	20.5	16.0
16	7.0	3.0	3.0	3.0	2.0	8.0	14.0	18.5	22.0	23.5	21.5	17.0
17	6.0	4.0	2.5	3.0	2.5	7.5	15.0	17.0	22.0	23.0	19.0	18.0
18	6.0	4.5	4.0	2.5	3.0	7.0	16.0	20.0	21.0	23.0	19.0	17.5
19	6.0	5.0	3.5	2.5	3.0	5.5	15.0	19.0	21.0	22.0	19.0	15.0
20	4.0	7.0	2.5	1.5	3.0	3.0	14.0	18.5	21.0	22.0	19.0	15.0
21	7.5	3.0	2.0	2.0	2.5	5.0	10.0	17.5	20.0	21.5	19.0	16.5
22	6.5	1.0	2.0	3.0	3.0	5.0	12.0	16.0	20.0	21.0	19.5	16.0
23	8.0	3.5	4.0	5.0	4.0	7.0	14.0	17.5	22.0	23.0	19.0	18.5
24	6.5	2.0	3.5	2.5	4.5	7.0	14.5	20.0	22.5	24.0	18.5	13.0
25	5.0	4.0	4.0	3.0	5.0	10.0	13.5	20.0	23.0	23.0	20.0	14.0
26	6.5	4.5	3.5	2.5	4.5	11.5	14.0	20.0	23.5	21.0	21.5	14.5
27	5.0	1.5	1.0	2.0	4.5	11.5	15.0	21.0	23.0	19.0	21.0	15.0
28	4.0	1.5	1.0	1.5	6.0	13.0	16.5	19.0	23.0	21.0	19.0	15.0
29	5.0	1.5	1.0	1.5	---	7.0	16.0	19.5	20.0	21.0	18.5	16.5
30	6.5	1.5	1.0	1.5	---	6.0	16.0	20.0	19.0	20.0	20.5	17.0
31	7.0	---	1.0	1.5	---	4.5	---	18.0	---	19.0	20.0	---

06772000 WOOD RIVER NEAR ALDA, NE

LOCATION.--Lat 40°51'10", long 98°28'20", in NE1/4SE1/4 sec.7, T.10 N., R.10 W., Hall County, Hydrologic Unit 10200102, on right bank 1.2 mi (1.9 km) south of Alda, 2.2 mi (3.5 km) upstream from old north channel of the Platte River, and 19 mi (31 km) upstream from present mouth.

DRAINAGE AREA.--628 mi² (1,627 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,897.66 ft (578.407 m) above mean sea level (Bureau of Reclamation bench mark).

REMARKS.--Records poor. Numerous small pump diversions for irrigation above station.

AVERAGE DISCHARGE.--24 years, 10.7 ft³/s (0.303 m³/s), 7,750 acre-ft/yr (9.56 hm³/yr); median of yearly mean discharges, 6.7 ft³/s (0.190 m³/s), 4,900 acre-ft/yr (6.04 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,630 ft³/s (46.2 m³/s) June 16, 1967, gage height, 12.22 ft (3.725 m); no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 11	1400	*476	13.5	9.30	2.835
May 29	0800	320	9.1	8.46	2.579
June 2	1000	454	12.9	9.22	2.810

Minimum discharge, no flow for most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.80	.00	.00	.00	.00	.00	.10	.00	321	2.0	5.1	35
2	.80	.00	.00	.00	.00	.00	.60	.00	364	1.1	3.8	141
3	.80	.00	.00	.00	.00	.00	1.8	.00	106	4.0	2.7	56
4	.80	.00	.00	.00	.00	.00	33	.00	49	4.4	4.2	7.9
5	.70	.00	.00	.00	.00	.00	50	.00	34	3.2	5.7	2.0
6	.60	.00	.00	.00	.00	.00	15	.00	21	1.6	10	.47
7	.60	.00	.00	.00	.00	.00	4.2	.00	15	.87	18	.00
8	.60	.00	.00	.00	.00	.00	1.1	.00	20	2.2	16	.00
9	.50	.00	.00	.00	.00	.00	.00	36	9.7	3.8	10	.00
10	.40	.00	.00	.00	.00	.00	.00	282	5.1	9.4	4.6	.00
11	.20	.00	.00	.00	.00	.00	.00	440	2.2	13	2.9	.11
12	.10	.00	.00	.00	.00	.00	.00	196	.76	12	1.8	16
13	.00	.00	.00	.00	.00	.00	.00	76	1.6	8.4	1.6	21
14	.00	.00	.00	.00	.00	7.8	.00	37	1.1	6.9	2.7	6.2
15	.00	.00	.00	.00	.00	72	.00	20	1.5	7.6	3.1	3.1
16	.00	.00	.00	.00	.00	24	.00	11	.66	9.4	3.6	1.8
17	.00	.00	.00	.00	.00	7.8	.00	5.9	.66	8.4	2.7	1.4
18	.00	.00	.00	.00	.00	1.5	.00	3.8	.36	7.6	2.0	.60
19	.00	.00	.00	.00	.00	.70	.00	2.9	.27	8.1	1.4	.00
20	.00	.00	.00	.00	.00	.00	.10	2.5	.18	7.1	.87	.00
21	.00	.00	.00	.00	.00	.00	8.2	4.0	.36	7.4	2.5	.00
22	.00	.00	.00	.00	.00	.00	22	30	.56	5.5	4.0	.00
23	.00	.00	.00	.00	.00	.00	72	79	65	5.9	5.1	.00
24	.00	.00	.00	.00	.00	.00	43	43	97	5.1	14	.00
25	.00	.00	.00	.00	.00	.00	20	21	33	6.7	27	.00
26	.00	.00	.00	.00	.00	.00	7.6	15	62	7.4	38	.00
27	.00	.00	.00	.00	.00	.00	2.2	8.9	48	25	26	.00
28	.00	.00	.00	.00	.00	.00	.20	176	21	42	16	.00
29	.00	.00	.00	.00	---	.00	.00	268	9.2	22	40	.00
30	.00	.00	.00	.00	---	.00	.00	107	2.3	12	92	.00
31	.00	---	.00	.00	---	.00	---	60	---	7.9	60	---
TOTAL	6.90	.00	.00	.00	.00	113.80	281.10	1925.00	1292.51	267.97	427.37	292.58
MEAN	.22	.000	.000	.000	.000	3.67	9.37	62.1	43.1	8.64	13.8	9.75
MAX	.80	.00	.00	.00	.00	72	72	440	364	42	92	141
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.18	.87	.87	.00
AC-FT	14	.00	.00	.00	.00	226	558	3820	2560	532	848	580

CAL YR 1976 TOTAL 372.54 MEAN 1.02 MAX 29 MIN .00 AC-FT 739
WTR YR 1977 TOTAL 4607.23 MEAN 12.6 MAX 440 MIN .00 AC-FT 9140

06772000 WOOD RIVER NEAR ALDA, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	DISSOLVED OXYGEN (MG/L) (00300)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)	TOTAL CALCIUM (CA) (MG/L) (00916)
MAY										
11...	1320	472	129	6.7	17.0	1800	6.1	200	[illegible]	37
JUN										
02...	1100	452	132	6.5	22.0	1500	6.3	180	13000	32
JUL										
14...	1120	6.6	952	8.7	27.0	20	13.6	59	1000	110
AUG										
23...	0855	6.0	1180	7.9	20.0	50	9.0	62	6500	120
SEP										
15...	1115	3.2	381	7.0	17.5	310	--	110	26000	38

DATE	TOTAL MAGNESIUM (MG) (MG/L) (00927)	TOTAL SODIUM (NA) (MG/L) (00929)	TOTAL POTASSIUM (K) (MG/L) (00937)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)
MAY									
11...	24	4.2	--	78	0	64	7.8	4.5	166
JUN									
02...	21	2.1	--	92	0	75	8.4	4.6	117
JUL									
14...	21	80	26	400	39	393	180	61	685
AUG									
23...	24	120	33	360	22	332	210	120	822
SEP									
15...	10	20	46	163	0	134	27	32	274

DATE	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	DISSOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL RESIDUE (MG/L) (00500)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)
MAY									
11...	.23	212	2840	1.1	1.2	8.6	9.8	11	2.0
JUN									
02...	.16	143	2540	1.4	.61	7.3	7.9	9.3	1.8
JUL									
14...	.93	12.2	735	2.8	.01	3.4	3.4	6.2	.90
AUG									
23...	1.12	13.3	971	4.3	.01	3.6	3.6	7.9	3.3
SEP									
15...	.37	2.37	679	.22	1.1	2.7	3.8	4.0	4.5

06772200 WOOD RIVER NEAR GRAND ISLAND, NE

LOCATION.--Lat 40°56'05", long 98°16'56", in SE1/4NE1/4SE1/4 sec.7, T.11 N., R.8 W., Merrick County, Hydrologic Unit 10200102, at bridge on county road, 1.0 miles south of U.S. Highway 30, 1.0 miles east of Grand Island.

PERIOD OF RECORD.--Water year 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	DIS-SOLVED OXYGEN (MG/L) (00300)	CHEM-ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLI-FORM .7UM-MF (COL./100 ML) (31625)	STREP-TOCOCCI (COL-ONIES PER 100 ML) (31679)
OCT 21...	0910	3.3	1540	--	11.0	6.9	5.6	--	6.0	2700	760
NOV 24...	1100	8.9	925	7.4	13.5	4.2	6.8	67	--	41000	3100
DEC 21...	0940	3.6	1590	7.5	4.0	5.8	7.2	65	8.5	135000	29000
JAN 26...	1305	16	1090	7.8	9.5	5.5	7.7	33	12	180000	13000
FEB 17...	0940	4.5	1630	7.8	8.5	5.1	8.3	46	8.5	460000	70000
MAR 01...	1420	9.5	1550	7.8	13.0	7.7	10.1	60	14	8000	1800
APR 27...	1010	13	773	7.2	17.0	190	5.8	76	26	8170000	8200
MAY 18...	1050	19	875	7.3	20.5	65	6.8	120	22	2900	210
JUN 29...	1100	30	713	7.8	23.5	272	6.7	83	14	8700	7000
JUL 21...	1100	36	772	7.5	23.5	19	5.5	85	16	893000	12000
AUG 11...	1120	10	1070	7.6	23.5	18	7.5	23	--	6300	--
SEP 01...	0920	56	445	7.1	19.5	270	7.3	76	30	16000	--

DATE	FECAL STREP-TOCOCCI KF AGAR (COL. PER 100 ML) (31673)	TOTAL CAL-CIUM (CA) (MG/L) (00916)	TOTAL MAG-NE-SIUM (MG) (MG/L) (00927)	TOTAL SODIUM (NA) (MG/L) (00929)	TOTAL PO-TAS-SIUM (K) (MG/L) (00937)	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) (70300)
OCT 21...	--	69	15	220	20	306	0	251	180	250	927
NOV 24...	--	--	14	97	17	264	0	217	140	100	594
DEC 21...	--	73	170	250	20	329	0	270	230	740	969
JAN 26...	--	85	17	120	16	286	0	235	200	69	713
FEB 17...	--	78	18	229	23	336	0	276	280	220	984
MAR 01...	--	80	17	210	19	368	0	302	230	210	941
APR 27...	--	57	13	64	28	248	0	208	87	67	688
MAY 18...	--	73	15	91	27	276	0	225	190	71	591
JUN 29...	--	68	17	79	21	225	0	185	120	64	677
JUL 21...	--	72	14	63	15	256	0	210	120	51	696
AUG 11...	1400	87	18	130	17	267	0	219	200	120	727
SEP 01...	14000	39	12	38	25	150	0	125	66	30	299

06772200 WOOD RIVER NEAR GRAND ISLAND, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS- SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS- SOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL RESI- DUE (MG/L) (00500)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L) (00625)	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L) (00666)
OCT										
21...	1.26	8.26	960	1.8	18	1.0	19	21	6.1	5.8
NOV										
28...	.81	14.3	619	.09	10	.90	10	11	5.5	5.2
DEC										
21...	1.32	9.62	997	.16	17	.00	17	17	2.0	--
JAN										
26...	.97	30.8	780	1.1	9.6	.00	9.6	11	1.8	--
FEB										
17...	1.38	12.0	1010	.00	20	--	--	--	6.0	5.8
MAR										
01...	1.28	20.1	975	.11	18	.00	18	18	3.6	--
APR										
27...	.61	15.7	680	1.0	9.0	.00	9.0	10	3.6	--
MAY										
18...	.80	30.1	690	1.0	8.5	0.5	9.0	11	4.7	4.5
JUN										
29...	.69	38.6	930	3.7	.40	1.5	1.9	5.6	2.0	--
JUL										
21...	.67	45.5	517	4.6	.01	1.5	1.5	6.1	2.1	--
AUG										
11...	.98	35.5	773	5.0	.00	1.7	1.7	6.7	3.3	2.8
SEP										
01...	.61	45.2	772	2.7	.00	.33	.61	3.1	5.0	--

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (80080)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
NOV									
28...	1100	12	230	13	69	13	97	2.8	17
FEB									
17...	0900	35	270	0	80	18	210	5.5	21
MAY									
18...	1050	110	240	15	75	15	79	2.2	25
AUG									
11...	1120	23	200	61	60	10	120	3.1	15

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	DIS- SOLVED SILVER (AG) (UG/L) (01075)
NOV								
28...	.4	28	595	200	40	30	--	--
FEB								
17...	.6	27	983	350	100	40	2	0
MAY								
18...	.5	23	572	170	100	10	--	--
AUG								
11...	.5	24	713	200	60	20	4	0

06772500 WOOD RIVER NEAR CHAPMAN, NE

LOCATION.--Lat 40°57'56", long 98°12'22", in NE1/4SE1/4 sec.34, T.12 N., R.8 W., Merrick County, Hydrologic Unit 10200102, at county road bridge 2.5 miles west and 4.0 miles south of center of Chapman.

DRAINAGE AREA.--733 sq mi, approximately.

PERIOD OF RECORD.--Water year 1960 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM (COL. PER 100 ML) (31616)
OCT 14...	0915	.70	100	7.9	11.0	10	8	6.2	18	4000
NOV 19...	0900	17	886	7.6	10.5	3	7	8.4	8.4	--
DEC 01...	0930	4.2	1120	7.6	.0	25	10	9.0	8.5	--
JAN 12...	1200	1.8	1570	7.3	.0	25	8	1.8	23	--
FEB 24...	1030	4.1	1430	7.7	3.0	--	10	9.9	15	--
MAR 17...	0910	33	639	7.4	11.0	--	120	8.2	22	--
APR 06...	1120	60	509	7.2	13.5	200	180	8.1	21	--
MAY 11...	1520	219	172	6.7	19.0	--	85	5.8	26	--
JUN 09...	1020	41	741	7.4	21.0	--	110	5.8	45	--
JUL 14...	0910	29	893	7.8	25.5	7	20	8.4	8.7	--
AUG 23...	1120	11	646	7.2	21.0	--	20	7.4	7.0	--
SEP 15...	0920	45	770	7.4	18.5	--	90	--	12	--

DATE	FECAL COLIFORM, .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)
OCT 14...	--	4000	--	270	70	79	17	120	3.2	18
NOV 19...	5400	1400	--	260	93	79	16	96	2.6	12
DEC 01...	49000	12000	--	250	100	69	19	140	4.0	22
JAN 12...	170000	37000	--	330	40	95	22	190	4.6	20
FEB 24...	140000	36000	--	--	--	--	--	--	--	--
MAR 17...	5800	5200	--	--	--	--	--	--	--	--
APR 06...	7000	5000	--	140	39	43	8.2	41	1.5	16
MAY 11...	847000	7000	--	--	--	--	--	--	--	--
JUN 09...	840000	3600	--	--	--	--	--	--	--	--
JUL 14...	950000	2200	--	300	110	91	18	75	1.9	13
AUG 23...	13200	--	30600	--	--	--	--	--	--	--
SEP 15...	16000	--	13000	--	--	--	--	--	--	--

06772500 WOOD RIVER NEAR CHAPMAN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)
OCT										
14...	231	0	189	180	110	.7	18	653	.89	1.23
NOV										
10...	208	0	171	200	77	.6	23	606	.82	27.8
DEC										
01...	160	0	131	180	150	.5	30	686	.93	7.78
JAN										
12...	351	0	288	260	180	.8	29	970	1.32	3.67
FEB										
28...	--	--	--	--	180	--	--	--	1.21	9.86
MAR										
17...	--	--	--	--	48	--	--	--	.56	36.9
APR										
06...	125	0	100	75	35	.4	17	298	.41	48.3
MAY										
11...	--	--	--	--	9.3	--	--	--	.26	107
JUN										
09...	--	--	--	--	62	--	--	--	.69	56.2
JUL										
14...	240	0	200	180	52	.5	25	573	.78	44.9
AUG										
23...	--	--	--	--	60	--	--	--	.56	12.3
SEP										
15...	--	--	--	--	56	--	--	--	.72	64.6

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO-GEN (N) (MG/L) (00605)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L) (00625)	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)
OCT										
14...	3.1	--	--	--	--	5.4	5.3	440	38	10
NOV										
10...	6.2	.00	2.2	2.2	8.4	1.4	1.3	170	40	30
DEC										
01...	.75	18	.00	18	19	11	11	400	70	40
JAN										
12...	.13	20	.00	20	20	7.9	7.9	420	110	50
FEB										
28...	.38	20	.00	20	20	6.5	--	--	--	--
MAR										
17...	1.8	2.8	1.8	4.6	6.4	1.5	--	--	--	--
APR										
06...	1.5	2.9	1.9	4.8	6.3	1.2	.99	130	290	30
MAY										
11...	1.5	1.5	9.5	11	13	<.08	--	--	--	--
JUN										
09...	3.5	2.4	21	23	27	3.8	--	--	--	--
JUL										
14...	4.7	.04	.96	1.0	5.7	1.3	1.2	150	20	8
AUG										
23...	2.9	1.2	1.3	2.5	5.4	4.9	--	--	--	--
SEP										
15...	3.5	.04	.55	.59	4.1	3.1	--	--	--	--

DATE	TIME	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	TOTAL MERCURY (HG) (UG/L) (71900)	SUS-PENDED MERCURY (HG) (UG/L) (71895)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)
JAN												
12...	1200	3	1	0	8	4	.0	.0	.0	1	0	30
JUL												
14...	0910	2	3	0	3	23	.1	.0	.1	13	0	20

06774000 PLATTE RIVER NEAR DUNCAN, NE

LOCATION.--Lat 41°22'04", long 97°29'40", in SE1/4SE1/4 sec.12, T.16 N., R.2 W., Platte County, Hydrologic Unit 10200103, on left bank 25 ft (8 m) downstream from highway bridge, 1.5 mi (2.4 km) south of Duncan, and 12 mi (19 km) upstream from Loup River.

DRAINAGE AREA.--60,900 mi² (157,700 km²), approximately, of which about 56,100 mi² (145,300 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1895 to December 1909 (irrigation seasons only 1895-1900), July 1910 to December 1911 (gage heights and discharge measurements only), April 1912 to September 1915, June 1928 to current year. Published as "near Columbus" 1895-1915.

REVISED RECORDS.--WSP 956: 1935. WSP 1390: 1897, 1899-1901, 1903-5, 1929-32, 1935(M), 1936. WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,478.55 ft (450.662 m) above mean sea level. June 1895 to December 1909, April 1912 to September 1915, and June to October 1928 nonrecording gage at site 7 mi (11 km) downstream at different datums. Oct. 25, 1928, to Feb. 20, 1935, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 44,100 ft³/s (1,250 m³/s) June 23, 1905, gage height, 6.50 ft (1.981 m), site and datum then in use; no flow at times in 1931, 1933-42, 1944, 1952-57, 1959, 1963, 1974, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,860 ft³/s (138 m³/s) May 27, gage height, 3.12 ft (0.951 m); maximum gage height recorded, 3.26 ft (0.994 m) Feb. 10, backwater from ice; minimum daily discharge, 13 ft³/s (0.37 m³/s) Aug. 6, 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	533	697	225	780	560	1390	1980	1900	2650	292	16	2060
2	533	715	250	820	580	1440	2720	1850	2600	255	14	1270
3	533	710	270	840	680	1490	3360	1880	2660	221	14	2110
4	511	689	310	760	920	1420	3500	2190	2400	175	14	1690
5	464	687	340	700	940	1300	2910	2160	2270	126	14	1360
6	446	662	380	680	920	1320	2600	2100	2300	93	13	1090
7	446	658	470	620	920	1270	2470	1870	2180	64	13	864
8	473	695	560	580	1000	1250	2310	1800	1760	78	13	796
9	522	701	680	540	1200	1240	2140	1860	1330	57	187	730
10	588	697	920	500	1300	1320	2000	2060	1120	44	160	714
11	632	715	1000	470	1500	1390	1870	2140	993	142	81	730
12	643	709	1100	470	1400	1490	1710	2120	952	85	55	847
13	632	660	1100	520	1500	1790	1870	1820	927	93	51	991
14	610	560	1200	640	1600	2060	1820	1580	828	76	85	1620
15	555	1090	1300	580	1700	2010	1840	1340	802	162	153	1290
16	511	1040	1400	560	1800	1920	1570	1210	726	218	334	1110
17	482	1170	1400	580	1900	1860	1570	1820	623	268	394	1030
18	473	1050	1500	640	2000	1670	1660	1370	648	245	254	954
19	455	969	1400	740	2100	1800	1640	1470	649	197	188	935
20	437	906	1300	860	2300	2140	2030	1630	495	138	152	864
21	442	845	1100	800	2500	2150	3100	2460	550	84	163	829
22	471	739	1040	800	2600	2060	3840	2510	587	57	176	812
23	485	803	1100	840	2650	2120	3950	2370	774	44	344	779
24	498	815	1040	820	2500	2370	3600	2280	1310	32	385	698
25	554	870	1100	860	2000	2420	3420	3660	1140	53	410	682
26	587	873	1120	880	1700	2280	3310	4180	987	44	413	682
27	595	622	1240	900	1660	1940	3170	4380	736	25	418	667
28	645	350	1400	800	1390	1890	2900	4160	545	23	577	682
29	685	210	1300	700	---	2260	2460	3270	456	21	586	746
30	690	215	1000	640	---	2360	2050	2920	356	20	558	935
31	690	---	720	600	---	2300	---	3180	---	17	1060	---
TOTAL	16821	22122	29265	21520	43820	55720	75370	71500	36354	3449	7295	30567
MEAN	543	737	944	694	1565	1797	2512	2306	1212	111	235	1019
MAX	690	1170	1500	900	2650	2420	3950	4380	2660	292	1060	2110
MIN	437	210	225	470	560	1240	1570	1210	356	17	13	667
AC-FT	33360	43880	58050	42680	86920	110500	149500	141800	72110	6840	14470	60630

CAL YR 1976 TOTAL 332817.33 MEAN 909 MAX 4280 MIN .00 AC-FT 660100
WTR YR 1977 TOTAL 413803.00 MEAN 1134 MAX 4380 MIN 13 AC-FT 820800

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)
OCT 20...	1000	828	874	7.8	1.5	7	270	78	70	23
NOV 10...	1445	700	838	8.5	5.0	3	250	66	64	21
DEC 21...	1230	1100	859	8.3	.5	5	280	78	76	22
JAN 12...	1210	471	894	6.8	.5	6	310	90	81	26
FEB 02...	1115	580	880	7.5	.0	6	300	84	79	24
MAR 15...	1000	2070	729	8.4	8.0	9	230	63	63	18
APR 06...	1100	2700	775	7.7	7.5	55	250	74	69	18
MAY 18...	1000	1350	663	7.7	21.0	65	210	63	58	16
JUN 08...	1430	1750	500	8.5	28.0	45	230	63	65	17
JUL 18...	1530	250	751	8.5	32.0	18	240	72	60	21
AUG 11...	1045	81	738	7.9	19.0	9	220	61	57	18
SEP 21...	1005	815	862	8.3	18.0	12	250	71	66	21

DATE	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)
OCT 20...	84	2.2	12	233	0	191	230	27	.5
NOV 10...	82	2.3	12	217	0	178	220	27	.6
DEC 21...	79	2.1	11	247	0	203	200	26	1.2
JAN 12...	93	2.3	12	267	0	219	240	31	.6
FEB 02...	85	2.2	11	258	0	212	230	30	.6
MAR 15...	65	1.9	10	204	0	167	180	22	.5
APR 06...	62	1.7	12	210	0	170	180	24	.5
MAY 18...	59	1.8	12	180	0	150	160	21	.5
JUN 08...	54	1.5	14	200	3	170	150	20	.6
JUL 18...	85	2.4	15	200	0	160	230	31	.6
AUG 11...	77	2.3	13	190	0	160	190	26	.5
SEP 21...	83	2.3	13	220	0	180	230	29	.6

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)
OCT 20...	22	584	.79	675	.22	.04	140	--	--
NOV 10...	21	555	.75	1050	.02	.02	130	--	--
DEC 21...	26	566	.77	1680	.62	.04	120	--	--
JAN 12...	29	648	.88	824	.77	.08	140	70	40
FEB 02...	26	616	.84	965	.66	.04	140	--	--
MAR 15...	22	484	.66	2710	.55	.05	110	--	--
APR 06...	23	495	.67	3610	.69	.12	110	--	--
MAY 18...	15	431	.59	1570	.13	.16	110	--	--
JUN 08...	25	449	.61	2120	.44	.31	120	--	--
JUL 18...	25	566	.77	382	.04	.05	160	--	--
AUG 11...	23	499	.68	109	.26	.11	130	--	--
SEP 21...	22	573	.78	1260	.00	.05	150	--	--

06775500 MIDDLE LOUP RIVER AT DUNNING, NE

LOCATION.--Lat 41°49'50", long 100°06'00", in NW1/4SE1/4 sec.33, T.22 N., R.24 W., Blaine County, Hydrologic Unit 10210001, on left bank just upstream from bridge on State Highway 2 at northeast corner of Dunning, 1 mi (2 km) upstream from Dismal River.

DRAINAGE AREA.--1,850 mi^2 (4,790 km^2), approximately, of which about 80 mi^2 (210 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1945 to current year.

REVISED RECORDS.--WDR NE-72: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,607.14 ft (794.656 m) above mean sea level. Prior to Sept. 12, 1946, nonrecording gage, and Sept. 12, 1946, to Sept. 30, 1962, water-stage recorder at site 0.2 mi (0.3 km) upstream at datum 0.03 ft (0.009 m) higher.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--32 years, 398 ft^3/s (11.27 m^3/s), 288,400 acre-ft/yr (0.356 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,020 ft^3/s (28.9 m^3/s) Apr. 20, 1971, gage height, 2.50 ft (0.762 m); maximum gage height, 7.02 ft (2.140 m) Mar. 31, 1949, backwater from ice, site and datum then in use; minimum daily discharge, 100 ft^3/s (2.83 m^3/s) Dec. 5, 6, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 946 ft^3/s (26.8 m^3/s) June 17, gage height, 2.39 ft (0.728 m); maximum gage height, 4.82 ft (1.469 m) Jan. 5, backwater from ice; minimum daily discharge, 190 ft^3/s (5.38 m^3/s) Mar. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	373	430	370	350	420	358	458	440	440	380	372	389
2	368	443	370	370	450	366	465	439	422	375	365	381
3	362	448	390	390	460	378	476	432	408	380	360	385
4	364	440	370	400	450	355	509	428	393	375	362	380
5	368	450	330	410	400	379	636	416	387	365	364	379
6	391	445	330	380	350	340	555	406	385	375	379	375
7	419	445	340	420	370	351	578	443	386	385	375	374
8	390	440	370	410	380	376	542	476	374	380	395	374
9	377	440	380	380	400	406	534	445	372	410	382	375
10	375	440	370	370	430	399	519	470	376	420	373	367
11	380	445	400	380	460	550	533	486	380	415	381	372
12	372	400	375	370	450	270	557	454	426	388	363	381
13	370	360	390	380	470	190	506	432	441	377	364	391
14	376	350	413	420	425	506	505	426	390	374	389	375
15	384	370	435	410	413	542	570	433	374	372	396	371
16	383	395	414	270	394	442	556	402	382	363	389	363
17	390	375	427	370	410	470	504	393	634	364	380	370
18	414	400	426	400	413	459	552	392	515	363	381	373
19	387	400	430	450	384	463	548	424	442	355	377	366
20	390	406	390	500	375	454	683	405	423	357	368	368
21	392	407	370	460	379	435	590	534	505	363	366	381
22	394	350	390	430	393	410	585	515	450	356	420	379
23	413	370	380	450	453	415	621	433	435	356	440	378
24	414	359	390	440	380	445	591	422	425	395	402	368
25	407	389	425	390	349	469	540	420	415	394	565	365
26	417	370	420	370	346	488	492	465	405	377	464	371
27	421	330	405	360	373	492	473	506	405	362	422	368
28	414	340	440	240	360	575	463	453	405	370	414	385
29	412	360	445	200	---	578	467	423	400	372	398	379
30	427	380	427	290	---	534	465	466	395	355	393	451
31	430	---	330	360	---	476	---	459	---	353	401	---
TOTAL	12174	11977	12142	11820	11337	13371	16073	13736	12590	11626	12200	11334
MEAN	393	399	392	381	405	431	536	443	420	375	394	378
MAX	430	450	445	500	470	578	683	534	634	420	565	451
MIN	362	330	330	200	346	190	458	392	372	353	360	363
AC-FT	24150	23760	24080	23440	22490	26520	31880	27250	24970	23060	24200	22480

CAL YR 1976 TOTAL 143120 MEAN 391 MAX 547 MIN 310 AC-FT 283900
WTR YR 1977 TOTAL 150380 MEAN 412 MAX 683 MIN 190 AC-FT 298300

06775500 MIDDLE LOUP RIVER AT DUNNING, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-56, 1965 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1949 to September 1956, October 1965 to current year.
SUSPENDED SEDIMENT DISCHARGE: March 1950 to September 1952, October 1953 to September 1956.

INSTRUMENTATION.--Temperature recorder from October 1, 1965.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURES: Maximum, 34.0°C June 21, 1956; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 3,000 mg/L Feb. 23, 1952; minimum daily, 56 mg/L Jan. 23, 1952.
SEDIMENT LOADS: Maximum daily, 5,160 tons (4,700 tonnes) Mar. 31, 1952; minimum daily, 21 tons (19 tonnes) Jan. 23, 1952.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 30.0°C June 5; minimum, 0.0°C on several days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
(RECORDER WITH TEMPERATURE ATTACHMENT, CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.5	13.0	11.0	6.5	0.5	0.5	0.5	0.5	0.5	0.5	4.5	1.0
2	18.0	14.0	10.0	7.0	0.5	0.5	0.5	0.5	0.5	0.5	5.5	1.0
3	19.0	14.5	8.0	5.0	0.5	0.5	0.5	0.5	0.5	0.5	5.0	1.0
4	14.5	11.0	6.5	2.0	1.5	1.0	0.5	0.5	0.5	0.5	4.5	1.0
5	15.0	10.0	8.5	3.5	2.0	1.5	0.5	0.5	0.5	0.5	3.5	1.0
6	12.0	9.0	8.5	5.5	1.5	1.0	0.5	0.5	0.5	0.5	8.0	1.5
7	10.5	8.0	8.0	3.5	1.0	1.0	0.5	0.5	0.5	0.0	10.5	3.5
8	14.5	7.0	9.0	3.5	1.0	1.0	0.5	0.5	0.0	0.0	12.0	5.5
9	16.0	10.0	9.5	6.0	3.5	1.0	0.5	0.5	0.0	0.0	12.0	6.0
10	17.0	11.0	7.0	3.5	2.0	1.0	0.5	0.5	3.0	0.0	9.0	7.0
11	16.5	12.0	4.5	1.5	1.0	1.0	0.5	0.5	5.5	2.0	7.0	1.0
12	16.5	12.0	1.5	0.5	3.0	1.0	0.5	0.5	5.0	3.0	5.5	1.0
13	16.5	11.0	1.0	0.5	4.5	1.0	0.5	0.5	6.0	3.5	5.0	1.0
14	15.5	11.0	2.0	0.5	5.5	3.0	0.5	0.5	4.5	3.5	5.5	1.5
15	12.0	6.5	4.5	1.0	4.5	2.0	0.5	0.5	3.5	1.5	6.5	2.0
16	10.5	6.5	5.0	1.0	5.5	2.0	0.5	0.5	6.0	3.0	8.0	3.5
17	8.0	4.5	8.5	3.5	6.5	3.5	0.5	0.5	6.5	3.5	8.5	4.5
18	5.5	3.5	9.0	5.0	6.5	3.5	0.5	0.5	6.0	3.5	10.0	4.5
19	7.0	3.5	6.5	4.0	5.0	1.5	0.5	0.5	6.0	2.0	9.0	6.0
20	9.0	4.0	5.0	2.0	1.5	1.5	0.5	0.5	8.0	2.0	6.0	3.0
21	10.5	4.5	2.0	0.0	1.5	1.0	0.5	0.5	9.0	3.5	7.0	1.5
22	10.5	5.0	0.5	0.0	1.0	1.0	0.5	0.5	7.0	5.5	10.5	3.5
23	8.5	6.0	3.0	0.5	1.0	1.0	0.5	0.5	6.5	1.0	11.5	6.0
24	7.0	5.5	6.0	1.5	1.0	0.5	0.5	0.5	5.0	1.0	12.0	6.0
25	7.0	3.5	6.5	3.5	1.0	1.0	0.5	0.5	5.5	2.0	14.0	9.5
26	5.5	4.5	5.5	0.5	3.0	1.0	0.5	0.5	6.0	1.5	11.5	8.5
27	5.5	4.5	0.5	0.5	5.5	3.0	0.5	0.5	5.5	1.5	15.0	8.5
28	8.0	3.5	0.5	0.5	3.5	1.0	0.5	0.5	4.5	2.0	13.0	5.5
29	9.5	4.0	0.5	0.5	1.0	0.5	0.5	0.5	---	---	8.0	4.0
30	10.0	5.5	0.5	0.5	0.5	0.5	0.5	0.5	---	---	5.5	1.5
31	10.5	5.5	---	---	0.5	0.5	0.5	0.5	---	---	6.5	1.0
MONTH	19.5	3.5	11.0	0.0	6.5	0.5	0.5	0.5	9.0	0.0	15.0	1.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	4.5	21.0	15.0	25.5	18.0	24.0	16.0	23.5	19.0	20.0	16.5
2	10.0	5.5	17.0	13.5	24.5	19.0	25.5	17.0	28.0	18.0	19.0	17.0
3	8.5	5.5	20.5	14.0	26.5	19.0	29.0	19.5	25.0	21.0	25.0	18.0
4	8.0	3.5	20.0	16.0	29.5	21.0	28.0	21.5	28.0	20.0	25.0	19.5
5	7.0	3.0	21.0	13.0	30.0	23.0	29.0	18.5	24.5	20.0	25.0	18.5
6	12.0	5.0	20.5	15.0	25.5	20.0	27.0	21.0	24.0	18.5	26.5	19.0
7	16.5	8.0	21.0	16.0	23.5	16.5	28.0	21.5	28.0	20.0	23.5	19.5
8	18.5	10.5	19.0	17.0	26.5	18.5	26.5	20.0	26.0	21.0	25.0	18.5
9	19.0	12.0	22.0	16.0	23.0	18.5	23.5	18.0	27.0	20.5	20.0	14.0
10	20.0	13.0	19.5	15.0	28.0	19.0	24.5	18.0	24.0	16.5	19.5	14.5
11	17.0	13.5	17.0	15.0	25.5	19.0	26.5	18.5	23.5	14.5	21.0	15.0
12	15.5	11.5	21.0	15.0	23.5	19.0	25.0	20.0	25.5	17.0	20.0	18.0
13	16.5	10.0	20.5	16.0	25.0	18.5	25.5	20.5	25.5	19.0	21.5	16.5
14	16.5	12.0	21.0	15.5	23.5	20.0	22.0	20.0	24.5	18.0	20.5	15.0
15	15.0	13.5	19.0	14.5	26.5	19.0	27.0	20.0	26.5	20.5	20.0	14.5
16	16.5	13.5	20.5	13.5	24.5	19.5	29.0	20.5	23.0	19.0	20.5	16.0
17	19.5	14.0	23.0	14.5	21.5	15.5	29.5	23.5	25.0	19.0	24.5	18.0
18	16.5	12.0	23.5	17.0	23.0	17.0	29.5	22.0	22.0	19.0	21.0	16.0
19	12.0	10.0	18.5	15.0	24.0	18.0	29.0	21.0	26.5	19.0	20.0	14.0
20	10.0	7.0	19.5	14.5	21.0	17.0	26.0	19.5	28.0	19.5	21.0	14.5
21	14.5	6.5	16.0	13.0	19.0	16.5	20.0	17.0	26.0	19.5	19.5	16.0
22	17.0	10.0	18.5	11.5	25.0	18.0	24.0	18.5	23.5	19.0	20.0	14.0
23	16.5	12.0	22.0	14.5	26.0	19.5	28.5	20.5	25.5	19.5	16.0	13.0
24	16.5	11.0	23.0	17.0	26.5	19.5	28.5	21.5	23.5	20.0	16.5	10.0
25	16.5	10.5	21.0	17.0	26.0	20.0	24.0	20.0	25.5	19.0	18.0	11.5
26	19.0	11.0	21.0	16.5	25.5	19.0	24.0	18.5	28.0	21.5	18.5	13.0
27	20.0	13.0	22.0	16.5	28.0	20.0	26.5	19.0	26.0	20.5	18.5	13.0
28	19.5	13.0	23.0	15.5	25.5	19.5	25.0	21.0	21.5	17.0	16.5	13.5
29	16.5	14.0	23.0	16.5	24.5	18.5	28.0	20.0	22.0	16.5	18.0	16.0
30	20.0	14.0	23.0	16.5	22.0	16.0	26.0	19.5	24.5	20.0	16.5	16.0
31	---	---	23.5	16.0	---	---	25.0	19.0	23.5	19.5	---	---
MONTH	20.0	3.0	23.5	11.5	30.0	15.5	29.5	16.0	28.0	14.5	26.5	10.0

06775900 DISMAL RIVER NEAR THEDFORD, NE
(Hydrologic bench-mark station and Radiochemical program)

LOCATION.--Lat 41°46'45", long 100°31'30", in SE1/4NW1/4 sec.23, T.21 N., R.28 W., Thomas County, Hydrologic Unit 10210002, on right bank 25 ft (8 m) upstream from bridge on State Highway 83, 2 mi (3 km) upstream from boundary of Nebraska National Forest (Bessey Division), and 14 mi (23 km) south of Thedford.

DRAINAGE AREA.--960 mi^2 (2,490 km^2), approximately, of which about 30 mi^2 (78 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,800.13 ft (853.480 m) above mean sea level.

REMARKS.--Records good.

AVERAGE DISCHARGE.--11 years, 191 ft^3/s (5.409 m^3/s), 138,400 acre-ft/yr (0.171 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 335 ft^3/s (9.49 m^3/s) July 28, 1967, gage height, 2.73 ft (0.832 m); maximum gage height, 2.94 ft (0.896 m) Dec. 31, 1968, backwater from ice; minimum daily discharge, 156 ft^3/s (4.42 m^3/s) Jan. 27, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 321 ft^3/s (9.09 m^3/s) May 7, gage height, 2.27 ft (0.692 m); minimum daily, 164 ft^3/s (4.64 m^3/s) Mar. 4,12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	191	197	187	190	186	172	223	208	181	173	178	187
2	188	199	185	188	199	180	229	201	185	178	179	184
3	188	199	182	190	196	172	228	199	182	179	181	187
4	184	199	187	191	182	164	219	202	181	178	185	187
5	185	195	184	181	191	170	216	198	183	179	183	186
6	193	196	185	187	184	184	219	196	182	180	185	185
7	190	196	185	191	184	185	246	241	182	179	189	184
8	178	196	177	185	184	195	239	199	180	180	195	183
9	183	198	190	186	194	196	239	192	181	196	189	182
10	186	196	181	181	196	198	237	195	180	192	183	180
11	186	192	186	189	188	208	242	191	183	188	182	181
12	185	191	186	193	182	164	241	191	194	187	181	184
13	185	180	194	191	185	197	230	190	200	186	186	186
14	186	176	201	189	188	211	238	188	184	185	196	182
15	185	194	191	183	191	210	249	186	182	185	192	181
16	182	189	191	183	184	211	244	184	187	183	189	182
17	181	195	195	192	182	209	240	184	199	185	191	185
18	178	196	201	184	184	208	237	184	184	182	191	184
19	178	196	201	191	186	204	239	194	180	180	192	181
20	178	189	195	186	192	203	240	192	179	180	193	184
21	184	188	188	185	186	201	242	209	210	179	194	185
22	186	183	185	195	196	199	236	192	188	179	198	183
23	191	190	185	199	194	212	238	192	182	181	200	187
24	186	192	191	189	178	222	227	192	179	202	196	185
25	182	202	192	179	171	226	218	190	178	197	237	183
26	189	192	192	191	170	227	212	205	179	184	211	185
27	190	186	205	199	178	227	211	211	179	183	195	182
28	183	174	205	191	170	242	209	191	179	188	188	183
29	195	179	201	188	---	228	212	185	178	182	185	189
30	197	174	193	192	---	218	217	192	176	181	189	240
31	199	---	185	192	---	215	---	184	---	177	190	---
TOTAL	5772	5729	5906	5851	5201	6258	6917	6060	5515	5688	5923	5577
MEAN	186	191	191	189	186	202	231	195	184	183	191	186
MAX	199	202	205	199	199	242	249	241	210	202	237	240
MIN	178	174	177	179	170	164	209	184	176	173	178	180
AC-FT	11450	11360	11710	11610	10320	12410	13720	12020	10940	11280	11750	11060

CAL YR 1976 TOTAL 69900 MEAN 191 MAX 235 MIN 167 AC-FT 138600
WTR YR 1977 TOTAL 70397 MEAN 193 MAX 249 MIN 164 AC-FT 139600

PLATTE RIVER BASIN

06775900 DISMAL RIVER NEAR THEDFORD, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	IMMEDIATE COLIFORM (COL. PER 100 ML) (31501)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)
NOV 22...	1515	183	169	8.3	4.0	7	15	9.9	2.6	18	14
JAN 03...	1530	196	173	7.5	2.5	7	15	10.9	4.0	6	<3
MAR 08...	1100	195	167	8.1	10.0	8	20	8.9	2.5	38	20
MAY 10...	1345	196	180	8.2	18.0	38	--	8.7	2.0	450	880
JUL 12...	1000	188	175	7.9	19.5	8	--	8.5	2.2	800	370
SEP 13...	1320	189	178	7.8	18.0	9	15	9.4	1.3	130	150

DATE	STREPTOCOCCI (COLONIES PER 100 ML) (31679)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)
NOV 22...	36	--	68	0	22	3.2	--	--	5.0	91	0
JAN 03...	29	--	69	0	22	3.5	6.7	.4	4.9	92	0
MAR 08...	42	--	71	0	23	3.4	6.8	.4	5.1	95	0
MAY 10...	520	--	75	0	24	3.7	--	--	--	100	0
JUL 12...	--	300	74	0	24	3.5	6.8	.3	4.7	97	0
SEP 13...	--	176	72	0	23	3.5	6.4	.3	5.0	100	0

DATE	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED FLUORIDE (F) (MG/L) (00950)	DISSOLVED SILICA (SIO2) (MG/L) (00955)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	DISSOLVED SOLIDS (TONS PER DAY) (70302)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL PHOSPHORUS (P) (MG/L) (00665)
NOV 22...	75	--	.8	.3	--	--	--	--	--	--	.19
JAN 03...	75	7.7	.8	.3	55	149	149	.20	78.9	.53	.21
MAR 08...	78	8.0	1.0	.3	52	156	149	.21	82.1	.46	.23
MAY 10...	82	--	.9	.3	--	--	--	--	--	--	.41
JUL 12...	80	7.2	.8	.3	54	152	151	.21	77.2	.40	.24
SEP 13...	82	6.1	.8	.3	57	143	153	.19	73.0	.43	.23

06775900 DISMAL RIVER NEAR THEDFORD, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED BARIUM (BA) (UG/L) (01005)	DIS-SOLVED BORON (B) (UG/L) (01020)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L) (01032)	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	CYANIDE (CN) (MG/L) (00720)
NOV										
22...	--	5	0	10	0	1	30	0	10	.00
JAN										
03...	.16	--	--	20	--	--	270	--	10	--
MAR										
08...	.19	--	--	20	--	--	60	--	10	--
MAY										
10...	--	6	100	20	0	1	70	5	10	.00
JUL										
12...	.17	--	--	30	--	--	30	--	8	--
SEP										
13...	.17	--	--	20	--	--	10	--	0	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL FILT-RABLE RESIDUE (MG/L) (00515)	TOTAL NON-FILT-RABLE RESIDUE (MG/L) (00530)	DIS-SOLVED GROSS ALPHA AS U-NAT. (UG/L) (80030)	SUS-PENDED GROSS ALPHA AS U-NAT. (UG/L) (80040)	DIS-SOLVED GROSS BETA AS CS-137 (PC/L) (03515)	SUS-PENDED GROSS BETA AS CS-137 (PC/L) (03516)	DIS-SOLVED GROSS BETA AS SR90 /Y90 (PC/L) (80050)	SUS-PENDED GROSS BETA AS SR90 /Y90 (PC/L) (80060)	DIS-SOLVED RA-226 (RADON METHOD) (PC/L) (09511)	DIS-SOLVED URANIUM (U) (UG/L) (80020)	TOTAL PCP (UG/L) (39516)
NOV												
22...	1515	150	300	<2.8	8.5	5.3	5.7	4.8	4.6	.04	.30	.0

DATE	PCB IN BOTTOM MA-TERIAL (UG/KG) (39519)	TOTAL ALDRIN (UG/L) (39330)	ALDRIN IN BOTTOM MA-TERIAL (UG/KG) (39333)	TOTAL CHLOR-DANE (UG/L) (39350)	CHLOR-DANE IN BOTTOM MA-TERIAL (UG/KG) (39351)	TOTAL DDD (UG/L) (39360)	DDD IN BOTTOM MA-TERIAL (UG/KG) (39363)	TOTAL DDE (UG/L) (39365)	DDE IN BOTTOM MA-TERIAL (UG/KG) (39368)	TOTAL DDT (UG/L) (39370)	DDT IN BOTTOM MA-TERIAL (UG/KG) (39373)
NOV											
22...	0	.00	.0	.0	0	.00	.0	.00	.0	.00	.0

DATE	TOTAL DI-AZINON (UG/L) (39570)	TOTAL DI-ELDRIN (UG/L) (39380)	DI-ELDRIN IN BOTTOM MA-TERIAL (UG/KG) (39383)	TOTAL ENDRIN (UG/L) (39390)	ENDRIN IN BOTTOM MA-TERIAL (UG/KG) (39393)	TOTAL ETHION (UG/L) (39398)	TOTAL HEPTA-CHLOR (UG/L) (39410)	HEPTA-CHLOR IN BOTTOM MA-TERIAL (UG/KG) (39413)	TOTAL HEPTA-CHLOR EPOXIDE (UG/L) (39420)	HEPTA-CHLOR EPOXIDE IN BOT-TOM MA-TERIAL (UG/KG) (39423)	TOTAL LINDANE (UG/L) (39340)
NOV											
22...	.00	.00	.0	.00	.0	.00	.00	.0	.00	.0	.00

DATE	LINDANE IN BOTTOM MA-TERIAL (UG/KG) (39343)	TOTAL MALA-THION (UG/L) (39530)	TOTAL METHYL PARA-THION (UG/L) (39600)	TOTAL METHYL TRI-THION (UG/L) (39790)	TOTAL PARA-THION (UG/L) (39540)	TOTAL TOX-APHENE (UG/L) (39400)	TOX-APHENE IN BOTTOM MA-TERIAL (UG/KG) (39403)	TOTAL TRI-THION (UG/L) (39786)	TOTAL 2,4-D (UG/L) (39730)	TOTAL 2,4,5-T (UG/L) (39740)	TOTAL SILVEX (UG/L) (39760)
NOV											
22...	.0	.00	.00	.00	.00	0	0	.00	.00	.00	.00

06776500 DISMAL RIVER AT DUNNING, NE

LOCATION.--Lat 41°49'23", long 100°06'05", in sec.4, T.21 N., R.24 W., Blaine County, Hydrologic Unit 10210002, on right bank 100 ft (30 m) downstream from bridge on State Highway 2 at southeast corner of Dunning and 1 mi (2 km) upstream from mouth.

DRAINAGE AREA.--2,040 mi² (5,280 km²), approximately, of which about 45 mi² (120 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--March to June 1932, September 1945 to current year.

REVISED RECORDS.--WSP 2118: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,606.3 ft (794.40 m) above mean sea level. Mar. 1 to June 30, 1932, nonrecording gage at site 0.2 mi (0.3 km) upstream at datum 0.5 ft (0.15 m) lower. Sept. 13, 1945, to Apr. 19, 1956, nonrecording gage on bridge 100 ft (30 m) upstream at present datum.

REMARKS.--Records good except those for winter periods, which are poor.

AVERAGE DISCHARGE.--32 years (1945-77), 322 ft³/s (9.119 m³/s), 233,300 acre-ft/yr (0.288 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,170 ft³/s (33.1 m³/s) Aug. 25, 1977, gage height, 2.06 ft (0.628 m); maximum gage height observed, 5.21 ft (1.588 m) Jan. 19, 1947, backwater from ice; minimum daily discharge, 100 ft³/s (2.83 m³/s) Jan. 25, 1950, Jan. 9, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,170 ft³/s (33.1 m³/s) Aug. 25, gage height, 2.06 ft (0.628 m); maximum gage height, 2.66 ft (0.811 m) Jan. 20, backwater from ice; minimum daily discharge, 250 ft³/s (7.08 m³/s) Dec. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	315	330	380	290	340	360	397	419	325	275	325	330
2	315	330	375	310	340	386	402	414	310	285	355	320
3	320	315	370	330	370	414	424	419	305	290	335	320
4	315	300	330	330	380	375	386	442	305	280	325	325
5	300	310	330	340	360	360	370	408	300	266	335	315
6	305	310	320	340	340	392	386	408	290	300	340	320
7	325	310	330	350	360	365	424	460	285	330	340	315
8	325	320	315	330	380	380	442	566	290	305	345	305
9	315	315	290	320	408	408	448	360	285	360	335	280
10	320	315	270	310	375	402	436	340	285	355	315	280
11	330	300	305	300	350	440	442	340	295	335	305	285
12	320	275	305	310	340	390	436	330	320	305	300	300
13	320	275	310	320	345	340	414	335	330	295	310	295
14	320	305	310	330	335	436	442	345	320	285	325	290
15	300	310	310	310	300	414	472	360	285	285	335	280
16	300	315	305	300	310	442	472	325	345	285	315	290
17	300	325	305	290	320	472	430	340	510	290	305	295
18	300	345	305	300	300	448	442	350	330	285	305	300
19	270	360	295	320	300	472	408	392	290	275	305	285
20	280	365	280	330	310	442	517	375	295	285	300	295
21	295	315	250	340	320	380	424	505	386	290	300	310
22	305	310	260	340	330	397	454	484	365	305	370	295
23	315	325	270	340	360	424	460	402	345	380	330	305
24	300	335	270	330	340	442	424	380	330	340	315	280
25	295	360	270	320	370	454	408	386	320	370	669	290
26	300	365	257	330	375	454	408	419	315	330	484	300
27	305	300	300	330	370	448	414	442	305	315	375	300
28	300	280	325	310	380	578	402	397	305	335	335	310
29	310	305	310	310	---	532	414	340	305	325	315	320
30	335	365	280	310	---	402	414	402	285	310	330	414
31	320	---	260	320	---	397	---	340	---	305	436	---
TOTAL	9575	9570	9392	9940	9708	13046	12812	12305	9561	9496	10714	9149
MEAN	309	319	303	321	347	421	427	397	319	306	346	305
MAX	335	365	380	350	408	578	517	585	510	370	669	414
MIN	270	275	250	290	300	340	370	325	285	266	300	280
AC-FT	18990	18980	18630	19720	19260	25880	25410	24410	18960	18840	21250	18150

CAL YR 1976 TOTAL 116160 MEAN 317 MAX 453 MIN 230 AC-FT 230400
WTR YR 1977 TOTAL 125268 MEAN 343 MAX 669 MIN 250 AC-FT 248500

06777000 MIDDLE LOUP RIVER NEAR MILBURN, NE

LOCATION.--Lat 41°49'02", long 99°58'15", in NE1/4SE1/4 sec.3, T.21 N., R.23 W., Blaine County, Hydrologic Unit 10210003, at Loughran bridge 9 miles upstream from Rifle Creek and 15 miles northeast of Milburn.

DRAINAGE AREA.--3,690 sq mi, approximately, of which 135 sq mi contributes directly to surface runoff.

PERIOD OF RECORD.--Water year 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)
OCT							
01...	1030	698	170	7.4	14.0	15	9.1
12...	1600	713	172	7.6	19.0	15	7.6
19...	1100	743	174	7.3	2.5	15	11.7
NOV							
02...	1420	709	166	7.6	10.0	15	9.0
11...	1045	766	175	7.4	1.5	15	12.2
17...	1150	743	166	6.6	8.0	20	9.9
23...	1430	799	165	8.2	3.5	15	11.3
DEC							
14...	0940	881	166	7.8	1.0	25	11.6
23...	1335	764	175	7.7	1.0	20	11.9
28...	1130	859	180	8.1	2.0	20	12.1
FEB							
15...	0930	791	167	8.2	.5	25	11.1
MAR							
30...	1000	976	169	8.2	1.0	35	11.7
APR							
19...	1505	878	196	8.4	11.5	40	8.6
MAY							
09...	1345	855	174	8.2	21.5	140	7.6
JUN							
21...	1335	978	165	7.8	21.0	35	8.7
JUL							
07...	1120	722	175	7.8	24.5	20	8.3
12...	1335	730	172	7.9	25.5	20	8.6
19...	1035	710	183	7.5	24.0	15	8.0
AUG							
02...	1225	727	177	7.6	24.5	20	8.6
09...	1020	749	177	7.5	21.5	15	8.7
16...	1140	723	178	7.6	20.0	15	9.2
23...	0925	807	166	7.3	20.5	25	8.0
30...	1035	331	175	7.4	21.5	25	8.7
SEP							
07...	1055	720	167	7.1	19.5	10	8.9
12...	1525	733	172	7.4	21.5	10	7.6
29...	1410	734	166	7.3	19.0	10	9.6

DATE	TIME	COLOR (PLATINUM-COBALT UNITS) (00080)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)
FEB											
15...	0930	7	0	22	3.4	6.6	.3	5.4	96	0	79
JUL											
12...	1335	9	0	22	3.5	7.0	.4	5.4	95	0	78

DATE	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED FLUORIDE (F) (MG/L) (00950)	DISSOLVED SILICA (SIO2) (MG/L) (00955)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DISSOLVED SOLIDS (TONS PER DAY) (70302)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)	DISSOLVED BORON (B) (UG/L) (01020)
FEB										
15...	8.0	1.8	.3	58	155	331	.21	.70	.17	20
JUL										
12...	9.3	1.2	.3	54	152	300	.21	.56	.19	30

06778500 MIDDLE LOUP RIVER NEAR COMSTOCK, NE

LOCATION.--Lat 41°28'49", long 99°12'43", in NE1/4SW1/4SW1/4 sec.1, T.17 N., R.17 W., Custer County, Hydrologic Unit 10210003, at bridge on Custer-Valley County line 0.3 miles downstream from diversions for canals 3 and 4, 1.9 miles, south of Burlington Northern Inc. crossing, and 5.5 miles southeast of Comstock.

DRAINAGE AREA.--4,550 sq mi, approximately, of which 439 sq mi contributes directly to surface runoff.

PERIOD OF RECORD.--Water year 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	DIS-SOLVED OXYGEN (MG/L) (00300)
OCT							
01...	1310	267	190	7.8	18.5	10	9.0
15...	1620	372	190	7.7	11.0	15	9.8
19...	1350	407	196	7.9	3.5	15	11.9
26...	1940	718	196	8.5	3.5	80	9.0
NOV							
04...	1330	826	194	7.5	4.5	80	11.5
11...	1545	861	187	7.6	2.0	75	12.0
16...	1525	1210	194	6.6	2.0	30	11.4
24...	1700	1820	175	8.2	3.5	30	11.1
DEC							
09...	1005	987	202	7.9	.5	10	11.0
16...	1505	1190	183	7.9	2.0	15	10.7
23...	1005	853	213	7.2	.0	15	11.6
27...	1620	1260	186	7.9	1.0	10	11.0
JAN							
26...	1055	968	176	7.7	.5	10	10.7
FEB							
18...	1140	1090	168	7.9	2.0	10	11.2
MAR							
31...	1010	787	191	8.1	4.5	30	12.6
APR							
22...	1210	1980	206	8.1	14.0	50	10.3
MAY							
12...	1320	810	200	8.3	20.0	60	9.8
JUN							
22...	1255	420	192	7.6	25.0	30	8.9
JUL							
07...	1615	88	190	8.5	29.0	15	9.1
13...	1950	208	186	7.7	28.0	20	9.0
19...	1330	82	211	8.9	29.5	15	8.6
AUG							
03...	1000	82	226	7.4	19.0	15	9.0
09...	1330	227	195	7.7	25.5	20	8.8
10...	1615	298	204	7.8	22.0	20	9.3
25...	1620	1060	170	7.1	26.0	55	7.7
30...	1335	720	195	7.5	22.5	35	8.9
SEP							
07...	1545	361	186	7.2	24.0	20	9.3
15...	1420	419	185	7.5	20.5	15	9.8
29...	1135	979	177	7.4	17.0	20	9.7

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)
FEB											
18...	1140	25	0	23	3.5	6.8	.3	5.1	95	0	78
JUL											
13...	1950	25	0	26	4.3	7.6	.4	6.1	110	0	90

DATE	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOL-VED PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)
FEB										
18...	6.2	1.0	.2	45	139	409	.19	.46	.15	20
JUL										
13...	6.8	1.7	.3	42	159	89.3	.22	.28	.17	30

06779000 MIDDLE LOUP RIVER AT ARCADIA, NE

LOCATION.--Lat 41°25'20", long 99°08'10", in sec.26, T.17 N., R.16 W., Valley County, Hydrologic Unit 10210003, on left bank 80 ft (24 m) downstream from bridge on State Highway 70 at southeast edge of Arcadia.

DRAINAGE AREA.--5,060 mi² (13,100 km²), approximately, of which about 820 mi² (2,120 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1937 to current year.

REVISED RECORDS.--WDR NB-72: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,146.30 ft (654.192 m) above mean sea level (levels by Bureau of Reclamation). Prior to Apr. 23, 1938, nonrecording gage at bridge just upstream at datum 1.23 ft (0.375 m) lower.

REMARKS.--Records poor. Middle Loup Public Power and Irrigation District began diversion above station Mar. 30, 1938. Farwell Irrigation District canal began diversion from river in November 1962 at point 8 mi (13 km) above station.

AVERAGE DISCHARGE.--15 years (1962-77), 641 ft³/s (18.15 m³/s), 464,400 acre-ft/yr (0.573 km³/yr) since diversion to Farwell Irrigation District canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge estimated, about 18,500 ft³/s (524 m³/s) June 22, 1947, gage height, 6.24 ft (1.902 m); maximum discharge computed, 9,710 ft³/s (275 m³/s) May 27, 1965, gage height, 5.12 ft (1.561 m); maximum gage height, 6.41 ft (1.954 m) Mar. 27, 1960, backwater from ice; minimum daily discharge, 6.0 ft³/s (0.17 m³/s) July 23, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,910 ft³/s (82.4 m³/s) Apr. 20, gage height, 2.65 ft (0.808 m); maximum gage height, 3.88 ft (1.183 m) Jan. 16, backwater from ice; minimum daily discharge, 79 ft³/s (2.24 m³/s) Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	319	743	600	560	800	862	586	577	1690	95	92	829
2	331	736	1000	660	820	1050	759	577	944	110	89	506
3	585	800	1100	740	930	1150	675	604	872	103	79	605
4	350	776	960	746	940	923	546	706	920	101	104	466
5	434	798	880	680	900	1150	363	666	830	97	120	495
6	425	833	700	740	880	1000	397	560	780	92	149	395
7	611	926	720	800	820	823	445	703	656	93	171	351
8	601	889	780	720	880	786	505	623	600	111	159	338
9	438	792	800	640	1000	978	509	695	275	145	204	321
10	337	815	880	620	1140	955	463	713	298	241	200	303
11	327	810	1100	666	1100	1760	444	650	337	740	153	295
12	344	760	820	700	1160	2070	480	606	540	536	164	677
13	319	780	1000	760	1200	1330	421	603	632	252	161	490
14	307	820	1020	700	1160	1070	916	627	502	170	176	461
15	330	940	1140	646	960	1100	772	1110	617	152	220	422
16	370	1120	1160	600	1060	1090	862	697	312	132	305	406
17	260	1180	1220	620	1160	1070	730	701	430	115	256	439
18	295	1020	1120	620	1160	930	730	767	679	112	292	390
19	307	1210	820	660	1350	997	618	1220	667	89	162	416
20	473	1310	680	660	1400	970	2300	1330	430	83	209	390
21	499	1510	560	760	1300	1060	1960	1690	357	154	206	406
22	632	1280	580	760	1350	1010	1710	1450	507	146	275	430
23	758	1300	620	880	1300	867	786	1070	531	120	414	580
24	842	1760	800	906	1220	888	800	925	376	116	398	720
25	1050	1730	820	946	1300	792	618	830	290	116	937	740
26	949	1790	900	1000	1060	690	564	932	206	143	1030	776
27	855	1000	1180	986	930	751	538	1020	166	137	720	776
28	828	600	1180	846	922	948	551	1000	125	111	570	800
29	782	250	1100	600	---	1620	577	1100	109	107	466	800
30	983	400	700	560	---	837	590	1200	97	104	436	935
31	827	---	650	650	---	680	---	1200	---	123	597	---
TOTAL	16826	29590	27490	22330	30132	32007	22203	28500	15079	4942	9552	15990
MEAN	543	987	887	720	1076	1032	740	919	503	159	308	533
MAX	1050	1790	1220	1000	1400	2070	2300	1690	1690	740	1030	935
MIN	260	250	450	560	800	680	363	560	97	83	79	295
AC-FT	33370	58710	54530	44290	59770	63490	44040	56530	29910	9800	18950	31720

CAL YR 1976 TOTAL 227520 MEAN 622 MAX 1790 MIN 18 AC-FT 451300
WTR YR 1977 TOTAL 254655 MEAN 698 MAX 2300 MIN 79 AC-FT 505100

06779000 MIDDLE LOUP RIVER AT ARCADIA NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)
JUN 08...	1600	319	220	8.0	20.0	88	0	28
JUL 27...	1010	150	295	8.4	23.0	96	0	31
SEP 22...	1310	378	212	8.0	19.5	84	0	28

DATE	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	BICAR-BONATE (HCO3) (MG/L) (00440)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)
JUN 08...	4.3	8.5	.4	120	98	9.9	1.2	.10
JUL 27...	4.6	7.2	.3	130	107	12	1.4	.24
SEP 22...	3.5	7.0	.3	110	90	5.6	0.4	.05

06783000 MUD CREEK NEAR BROKEN BOW, NE

LOCATION.--Lat 41°22'30", long 99°35'10", in NW1/4SW1/4NW1/4 sec.11, T.16 N., R.20 W., Custer County, Hydrologic Unit 10210005, at bridge on State Highway 2, about 3 miles southeast of Broken Bow.

PERIOD OF RECORD.--Water year 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)
OCT										
26...	1020	1.9	608	8.2	4.0	25	7.5	36	67	2200
NOV										
16...	1040	.16	589	6.5	1.0	20	7.3	7.8	33	1500
DEC										
06...	1410	.30	547	7.6	.5	10	7.7	3.0	67	1500
JAN										
26...	1355	.40	542	7.9	.5	8	10.0	7.0	570	740
FEB										
15...	1420	.82	482	8.3	.5	8	10.2	4.5	67	410
MAR										
09...	1140	1.3	474	8.2	10.0	15	8.3	6.0	330	390
APR										
19...	1020	2.2	800	8.2	12.5	15	6.6	18	28000	4100
MAY										
24...	1140	1.8	646	8.4	21.5	15	6.9	11	7200	1600
JUN										
02...	1055	2.3	709	7.8	20.5	25	6.9	12	16000	6000
JUL										
14...	1140	1.8	606	8.2	24.0	25	8.9	15	21000	819000
AUG										
03...	1330	30	307	7.2	20.0	140	2.5	43	--	--
SEP										
14...	1300	1.4	686	7.9	19.0	20	8.0	17	1700	--

DATE	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)
OCT										
26...	--	77	398	.54	2.5	4.0	6.5	7.1	1.5	.43
NOV										
16...	--	25	--	.54	.02	3.5	3.5	3.5	1.0	1.0
DEC										
06...	--	39	372	.51	.55	.85	1.4	2.3	.35	--
JAN										
26...	--	38	375	.51	1.4	.00	1.4	2.1	.68	--
FEB										
15...	--	31	--	.45	.51	.42	.93	1.6	.31	.27
MAR										
09...	--	17	330	.45	1.0	.70	1.7	2.0	.67	--
APR										
19...	--	39	487	.66	7.4	1.8	9.2	9.8	2.7	--
MAY										
24...	--	31	--	.57	1.3	.90	2.2	3.7	1.3	1.2
JUN										
02...	--	60	471	.64	1.9	4.3	6.2	7.9	2.3	--
JUL										
14...	--	58	414	.56	.02	3.4	3.4	3.6	1.3	--
AUG										
03...	--	28	--	.27	<.90	20	21	22	9.6	7.5
SEP										
14...	4600	73	473	.64	>.45	2.8	3.2	3.9	5.9	--

06783000 MUD CREEK NEAR BROKEN BOW, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS (CA,MG) (MG/L) (00900)	NON-CARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)
NOV 16...	1040	18	260	0	78	15	27	.7	14	331
FEB 15...	1420	10	210	3	67	18	22	.7	11	250
MAY 24...	1140	43	260	1	79	14	34	.9	10	310
AUG 03...	1330	140	98	0	32	4.4	14	.6	31	120

DATE	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED FLUORIDE (F) (MG/L) (00950)	DISSOLVED SILICA (SIO2) (MG/L) (00955)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DISSOLVED ARSENIC (AS) (UG/L) (01000)	DISSOLVED BORON (B) (UG/L) (01020)	DISSOLVED CADMIUM (CD) (UG/L) (01025)	DISSOLVED CHROMIUM (CR) (UG/L) (01030)
NOV 16...	0	271	14	.2	58	395	--	110	--	--
FEB 15...	0	205	25	.3	42	332	5	60	1	0
MAY 24...	0	250	41	.3	48	418	--	120	--	--
AUG 03...	0	98	19	.1	8.9	197	7	110	3	0

DATE	DISSOLVED COPPER (CU) (UG/L) (01040)	DISSOLVED IRON (FE) (UG/L) (01046)	DISSOLVED LEAD (PB) (UG/L) (01049)	DISSOLVED MANGANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUSPENDED MERCURY (HG) (UG/L) (71895)	DISSOLVED MERCURY (HG) (UG/L) (71890)	DISSOLVED SELENIUM (SE) (UG/L) (01145)	DISSOLVED SILVER (AG) (UG/L) (01075)	DISSOLVED ZINC (ZN) (UG/L) (01090)
NOV 16...	--	30	--	340	--	--	--	--	--	--
FEB 15...	2	70	8	90	.1	.1	.0	3	0	10
MAY 24...	--	50	--	120	--	--	--	--	--	--
AUG 03...	15	370	14	60	.1	.1	.0	1	0	70

06783500 MUD CREEK NEAR SWEETWATER, NE

LOCATION.--Lat 41°02'15", long 98°59'35", in NE1/4SE1/4 sec.3, T.12 N., R.15 W., Buffalo County, Hydrologic Unit 10210005, on right bank 12 ft (4 m) downstream from bridge on State Highway 2, 0.9 mi (1.4 km) southeast of Sweetwater, and 11.6 mi (18.7 km) upstream from mouth.

DRAINAGE AREA.--707 mi² (1,831 km²), of which 655 mi² (1,696 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--July 1946 to current year.

REVISED RECORDS.--WDR NE-72: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,013.69 ft (613.773 m) above mean sea level.

REMARKS.--Records good except those for winter period, which are poor. Minor irrigation developments above station.

AVERAGE DISCHARGE.--31 years, 40.1 ft³/s (1.136 m³/s), 29,050 acre-ft/yr (35.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge estimated, about 27,000 ft³/s (765 m³/s) June 22, 1947, gage height, 23.20 ft (7.071 m); maximum discharge computed, 5,600 ft³/s (159 m³/s) June 24, 1968, gage height, 20.07 ft (6.117 m); no flow at times in 1955-56.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1929, that of June 22, 1947, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 728 ft³/s (20.6 m³/s) May 8 at 1500, gage height, 13.10 ft (3.993 m), no other peak above base of 550 ft³/s (15.6 m³/s); minimum daily, 4.3 ft³/s (0.12 m³/s) July 27,28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	13	12	10	7.0	15	32	32	105	18	9.1	20
2	7.1	12	11	10	10	16	74	31	65	14	8.5	51
3	7.6	12	13	11	12	17	56	34	49	14	10	27
4	7.1	11	12	12	12	15	47	32	38	14	12	22
5	7.4	12	12	13	12	11	34	30	33	12	7.6	21
6	8.8	12	11	13	10	14	32	30	33	11	14	20
7	9.8	12	11	14	10	20	30	45	32	12	32	20
8	8.7	12	11	12	12	30	28	525	30	11	41	19
9	9.8	13	12	10	14	28	26	180	29	15	30	18
10	11	13	11	11	18	26	25	68	27	20	23	18
11	12	13	13	11	17	31	25	50	27	25	14	25
12	11	11	12	12	16	107	29	40	28	31	11	60
13	11	10	14	12	18	63	28	37	127	28	9.5	24
14	11	12	15	13	17	79	65	35	233	18	9.5	21
15	10	13	15	11	15	44	388	34	65	16	18	19
16	11	13	16	10	16	35	109	37	39	30	25	19
17	11	14	17	11	17	30	69	84	33	21	18	19
18	10	14	17	11	17	27	57	51	49	15	24	19
19	11	13	16	12	16	26	67	39	60	11	49	18
20	11	13	14	13	16	25	143	43	45	6.7	22	19
21	11	12	11	12	19	24	156	74	39	6.1	18	19
22	12	11	13	11	18	23	94	114	30	8.1	73	18
23	12	14	14	12	17	24	78	163	27	6.9	149	18
24	11	15	14	12	17	23	51	93	28	11	67	19
25	12	16	14	13	16	21	42	72	30	13	259	18
26	12	14	14	13	15	22	37	78	27	6.1	90	18
27	12	13	15	13	14	21	36	75	24	4.3	32	18
28	12	9.0	14	12	13	23	33	73	23	4.3	32	19
29	11	9.0	11	10	---	28	32	50	22	6.4	29	19
30	12	11	8.6	9.0	---	28	32	170	20	6.1	25	20
31	12	---	7.8	8.0	---	26	---	201	---	6.1	33	---
TOTAL	322.1	372.0	401.4	357.0	411.0	922	1955	2620	1417	421.1	1194.2	665
MEAN	10.4	12.4	12.9	11.5	14.7	29.7	65.2	84.5	47.2	13.6	38.5	22.2
MAX	12	16	17	14	19	107	388	525	233	31	259	60
MIN	6.8	9.0	7.8	8.0	7.0	11	25	30	20	4.3	7.6	18
AC-FT	639	738	796	708	815	1830	3880	5200	2810	835	2370	1320

CAL YR 1976 TOTAL 6602.40 MEAN 18.0 MAX 619 MIN .56 AC-FT 13100
WTR YR 1977 TOTAL 11057.80 MEAN 30.3 MAX 525 MIN 4.3 AC-FT 21930

06784000 SOUTH LOUP RIVER AT ST. MICHAEL, NE

LOCATION.--Lat 41°01'53", long 98°44'25", in NE1/4NE1/4 sec.11, T.12 N., R.13 W., Buffalo County, Hydrologic Unit 10210004, 15 ft (5 m) upstream and 65 ft (20 m) right from right upstream corner of county highway bridge, 0.6 mi (1.0 km) northeast of St. Michael, and 3.4 mi (5.5 km) upstream from Sweet Creek.

DRAINAGE AREA.--2,350 mi^2 (6,090 km^2), approximately, of which about 1,610 mi^2 (4,170 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1943 to current year.

REVISED RECORDS.--WDR NE-74: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,921.26 ft (585.600 m) above mean sea level, adjusted. Prior to June 22, 1947, water-stage recorder, and June 25 to Sept. 30, 1947, nonrecording gage, at site 40 ft (12 m) downstream at datum 2.00 ft (0.610 m) higher. Oct. 1, 1947, to July 3, 1958, nonrecording gage at site 40 ft (12 m) downstream at present datum. July 4, 1958, to Sept. 7, 1960, water-stage recorder at site 560 ft (171 m) upstream at present datum. Sept. 8, 1960, to June 24, 1968, water-stage recorder at site 60 ft (18 m) upstream at present datum. June 25 to Nov. 21, 1968, nonrecording gage at site 40 ft (12 m) downstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Minor irrigation developments above station.

AVERAGE DISCHARGE.--34 years, 241 ft^3/s (6.825 m^3/s), 174,600 acre-ft/yr (0.215 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge estimated, about 50,000 ft^3/s (1,420 m^3/s) June 22, 1947, gage height, 12.0 ft (3.66 m), present datum, from graph based on gage readings; maximum discharge computed, 27,500 ft^3/s (779 m^3/s) June 24, 1968, gage height, 11.00 ft (3.353 m); minimum daily, 6.6 ft^3/s (0.19 m^3/s) Aug. 30, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,390 ft^3/s (96.0 m^3/s) Sept. 12, gage height, 6.86 ft (2.091 m); minimum daily, 41 ft^3/s (1.16 m^3/s) Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	147	90	116	125	190	295	258	689	120	41	210
2	113	146	110	56	140	200	450	267	391	105	64	1040
3	114	149	120	74	150	205	474	311	268	96	69	1240
4	113	146	120	96	170	192	429	302	215	83	113	338
5	115	149	110	135	180	198	385	286	228	76	104	296
6	123	151	140	150	200	191	347	269	281	69	96	230
7	140	149	150	160	230	185	332	282	268	76	115	190
8	137	154	155	130	240	194	303	977	257	83	140	162
9	129	155	160	100	240	202	278	1370	235	88	152	146
10	132	154	120	90	235	205	263	689	214	158	125	146
11	128	150	130	96	230	352	243	349	201	143	106	178
12	132	130	145	100	220	814	240	280	213	158	92	1950
13	130	90	140	110	240	565	313	289	489	235	81	410
14	128	68	140	116	220	384	289	286	488	154	84	181
15	125	82	165	104	200	271	542	342	278	100	118	181
16	120	166	170	90	230	244	477	517	260	89	123	162
17	126	216	180	94	260	217	399	306	229	99	134	154
18	126	235	190	98	320	209	393	310	210	75	124	150
19	129	194	180	110	370	261	405	355	229	54	156	143
20	135	168	130	125	450	291	787	383	216	55	129	133
21	134	140	155	116	442	281	1070	720	219	51	126	136
22	136	130	160	120	367	256	669	994	253	63	276	139
23	136	165	135	150	268	265	399	670	196	65	696	146
24	133	180	145	140	213	298	289	481	185	84	422	146
25	138	190	180	140	190	287	266	344	178	85	1460	143
26	136	160	190	135	190	265	250	712	173	61	865	146
27	137	70	190	150	190	265	232	712	162	61	291	143
28	144	66	175	110	189	323	244	462	150	48	291	146
29	141	70	170	114	---	441	255	361	133	52	276	150
30	146	70	160	118	---	408	260	959	123	50	185	150
31	147	---	130	130	---	326	---	1590	---	43	355	---
TOTAL	4041	4240	4635	3573	6699	8985	11578	16433	7631	2779	7409	9085
MEAN	130	141	150	115	239	290	386	530	254	89.6	239	303
MAX	147	235	190	160	450	814	1070	1590	689	235	1460	1950
MIN	113	66	90	56	125	185	232	258	123	43	41	133
AC-FT	8020	8410	9190	7090	13290	17820	22960	32590	15140	5510	14700	18020

CAL YR 1976 TOTAL 64695 MEAN 177 MAX 718 MIN 20 AC-FT 128300
WTR YR 1977 TOTAL 87088 MEAN 239 MAX 1950 MIN 41 AC-FT 172700

06784000 SOUTH LOUP RIVER AT ST. MICHAEL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-53, 1974 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: June 1946 to June 1953.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 19,300 mg/L June 19, 1946; minimum daily, 13 mg/L Dec. 30, 31, 1951.
SEDIMENT LOADS: Maximum daily, 672,000 tons (612,000 tonnes) June 22, 1947; minimum daily, 6.1 tons (5.5 tonnes) Dec. 30, 31, 1951.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	DIS-SOLVED OXYGEN (MG/L) (00300)
OCT							
13...	1205	133	361	8.0	15.5	35	9.6
20...	1100	136	387	7.9	4.0	40	11.7
26...	1105	140	378	7.7	4.5	40	10.9
NOV							
04...	1415	151	373	8.0	5.5	45	10.5
09...	1310	159	399	8.0	10.0	45	10.1
18...	1430	225	351	6.6	7.0	90	9.7
23...	1210	152	408	8.0	1.0	50	12.1
DEC							
01...	1125	87	544	7.6	.0	25	10.6
08...	1350	154	405	7.9	.5	15	10.1
13...	1110	147	376	7.4	.5	15	9.5
21...	1150	170	451	7.5	.0	25	12.1
JAN							
06...	1135	153	431	7.1	.0	20	9.9
FEB							
17...	1325	268	363	7.5	2.0	20	11.7
MAR							
31...	1500	336	405	7.9	9.0	85	11.7
APR							
20...	1010	738	344	7.8	11.0	210	9.7
MAY							
11...	1610	330	375	7.7	21.0	200	8.5
JUN							
23...	1350	286	371	8.5	29.5	90	10.4
JUL							
07...	1430	73	381	7.3	32.5	30	8.6
14...	1430	150	322	8.2	31.0	150	7.7
21...	1315	57	338	8.3	22.0	35	9.1
AUG							
03...	1400	72	361	8.2	28.5	40	9.5
08...	1330	149	357	8.4	27.5	65	9.3
18...	1355	121	334	8.6	24.5	65	12.2
22...	1215	238	227	7.3	19.0	190	7.4
SEP							
02...	1035	1880	207	7.2	19.5	100	6.8
08...	1450	157	366	8.7	27.0	65	12.0
12...	1325	1640	--	7.0	14.5	130	--
26...	1410	147	399	8.1	20.5	35	10.2

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)
FEB											
17...	1325	18	0	50	7.6	9.4	.3	6.8	197	0	162
JUL											
14...	1430	60	6	48	8.1	11	.4	11	180	0	150

DATE	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOL-VED PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)
FEB										
17...	16	3.1	.2	39	232	168	.32	.73	.16	30
JUL										
14...	17	4.8	.3	40	238	96.4	.32	2.1	.42	60

06784200 SHERMAN RESERVOIR NEAR LOUP CITY, NE

LOCATION.--Lat 41°18'10", long 98°52'45", in SW1/4NW1/4 sec.1, T.15 N., R.14 W., Sherman County, Hydrologic Unit 10210003, in control house of outlet works of Sherman Dam, 5 mi (8 km) northeast of Loup City.

ELEVATION AND CONTENTS RECORDS

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Mercury-column pressure gage read once daily. Datum of gage is at mean sea level.

REMARKS.-- Reservoir is formed by earthfill dam; closure date of dam, August 1960. First diversions from Middle Loup River, Nov. 8, 1962. Usable capacity, 65,237 acre-ft (80.4 hm³) between elevations 2,118.5 ft (645.72 m), sill of canal outlet works, and 2,162.3 ft (659.07 m), crest of spillway. Dead and inactive storage, 3,839 acre-ft (4.73 hm³) below elevation 2,118.5 ft (645.72 m). Figures given herein represent total contents. Water used for irrigation of Farwell Unit of Bureau of Reclamation.

COOPERATION.--Records of elevations and capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 70,230 acre-ft (86.6 hm³) June 22, 1975, elevation, 2,162.7 ft (659.19 m); minimum observed since appreciable storage was attained, 10,010 acre-ft (12.3 hm³) Sept. 1, 1971, elevation, 2,128.4 ft (648.74 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 69,360 acre-ft (85.5 hm³) May 22 to June 7, June 18-26, elevation, 2,162.4 ft (659.10 m); minimum observed, 27,440 acre-ft (33.8 hm³) Aug. 7, 8, elevation, 2,143.3 ft (653.28 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2,146.0	31,870	-
Oct. 31	2,155.3	50,820	+18,950
Nov. 30	2,154.4	48,730	-2,090
Dec. 31	2,153.6	46,920	-1,810
CAL YR 1976	-	-	-2,270
Jan. 31	2,153.0	45,580	-1,340
Feb. 28	2,152.5	44,500	-1,080
Mar. 31	2,153.4	46,480	+1,980
Apr. 30	2,160.7	64,580	+18,100
May 31	2,162.4	69,360	+4,780
June 30	2,161.0	67,650	-1,710
July 31	2,146.8	33,280	-34,370
Aug. 31	2,149.4	38,130	+4,850
Sept. 30	2,156.9	54,670	+16,450
WTR YR 1977	-	-	+22,800

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)
JUN 08...	1420	100	242	7.9	20.0	93	0
JUL 27...	1130	--	233	8.0	23.0	88	0
SEP 22...	1410	--	216	8.0	21.0	85	0

DATE	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	BICARBONATE (HCO3) (MG/L) (00440)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)
JUN 08...	30	4.5	8.2	.4	120	98	6.0
JUL 27...	28	4.5	7.7	.4	130	107	7.2
SEP 22...	28	3.7	7.3	.3	120	98	5.9

06785000 MIDDLE LOUP RIVER AT ST. PAUL, NE

LOCATION.--Lat 41°11'55", long 98°26'50", in NE1/4SW1/4NE1/4 sec.10, T.14 N., R.10 W., Howard County, Hydrologic Unit 10210003, on left bank at St. Paul, 450 ft (137 m) upstream from bridge on U.S. Highway 281 and 6 mi (10 km) upstream from confluence with North Loup River.

DRAINAGE AREA.--8,090 mi² (21,000 km²), approximately, of which about 3,130 mi² (8,110 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1894 to September 1915, August 1928 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1036: 1943. WSP 1390: 1896, 1903, 1928(M), 1944. WDR NE-72: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,776.61 ft (541.511 m) above mean sea level. See WSP 1918 for history of changes prior to June 5, 1957.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation.

AVERAGE DISCHARGE.--70 years, 1,195 ft³/s (33.84 m³/s), 865,800 acre-ft/yr (1.07 km³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 72,000 ft³/s (2,040 m³/s) June 23, 1947, gage height, 12.69 ft (3.868 m), site then in use, present datum, from rating curve extended above 55,000 ft³/s (1,560 m³/s); minimum daily since 1929, 59 ft³/s (1.67 m³/s) July 10, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,850 ft³/s (194 m³/s) Sept. 12, gage height, 5.38 ft (1.640 m); maximum gage height recorded, 5.94 ft (1.811 m) Feb. 15, backwater from ice, but may have been exceeded during the period of no gage-height record Feb. 6-14; minimum daily discharge, 98 ft³/s (2.78 m³/s) Nov. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	422	916	500	720	900	668	1300	1120	1560	240	274	870
2	404	1010	540	840	1000	520	2360	1190	995	226	409	2620
3	412	1060	800	900	1200	950	2050	1360	969	239	353	3540
4	520	1090	1250	900	1100	1090	1400	1140	893	275	438	755
5	556	1310	1000	840	1060	848	1350	1100	917	222	522	526
6	532	1430	880	900	1000	1250	1180	1090	888	208	648	556
7	640	990	840	1000	1100	1170	1160	1040	923	283	650	614
8	682	780	840	960	1300	916	878	1720	1010	822	483	565
9	780	900	1600	700	1500	970	831	2460	1230	518	473	556
10	700	1090	890	740	1600	1230	910	1980	1120	890	392	577
11	620	1310	900	800	1500	1470	867	1280	1030	986	412	587
12	560	1030	1120	860	1400	2950	970	1160	1190	825	406	3970
13	560	1250	1140	920	1700	1870	1270	1150	1500	858	303	1870
14	540	1150	940	980	1500	1240	2660	1110	1860	620	469	700
15	500	1350	1040	800	1300	1240	3550	1160	1530	454	598	600
16	490	1390	1250	760	1500	1630	1810	1750	1060	367	1020	583
17	500	1350	1550	800	1700	1550	1370	1140	965	330	1450	595
18	490	1370	1700	740	1800	1630	1540	1050	983	306	618	620
19	440	1150	1250	860	1900	1900	1610	1320	1110	256	462	616
20	540	1620	1020	920	2000	1660	2500	1770	1060	244	613	600
21	604	1560	1080	1060	2300	1760	3420	2810	955	228	467	621
22	648	1190	1140	1020	2100	1640	2150	4040	827	286	554	631
23	814	1060	880	1160	2170	1630	1680	2660	759	438	1050	665
24	1210	1030	660	1100	2240	1430	1560	1660	848	373	995	759
25	1110	1420	1000	1100	2080	1390	1490	1410	714	352	2210	988
26	1010	1400	1200	1060	1510	1380	1310	1810	585	363	3480	1010
27	797	900	1300	1140	1350	1380	1200	2210	509	338	654	1150
28	724	450	1400	1060	933	1550	1150	1860	387	370	528	1210
29	616	98	1350	1000	---	1990	1190	1450	329	357	564	1260
30	766	260	1000	900	---	2000	1160	2500	266	306	700	1410
31	882	---	600	860	---	1390	---	4600	---	286	1340	---
TOTAL	20069	32914	32060	28400	42743	44292	47876	54100	28972	12874	23535	31624
MEAN	647	1097	1034	916	1527	1429	1596	1745	966	415	759	1054
MAX	1210	1620	1700	1160	2300	2950	3550	4600	1860	986	3480	3970
MIN	404	98	500	700	900	520	831	1040	266	208	274	526
AC-FT	39810	65280	63590	56330	84780	87850	94960	107300	57470	25540	46680	62730

CAL YR 1976 TOTAL 323673 MEAN 884 MAX 2540 MIN 98 AC-FT 642000
WTR YR 1977 TOTAL 399459 MEAN 1094 MAX 4600 MIN 98 AC-FT 792300

06785000 MIDDLE LOUP RIVER AT ST. PAUL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)
OCT							
21...	1140	683	304	7.8	7.0	35	11.1
26...	1410	1020	256	7.6	4.5	40	11.5
NOV							
04...	1110	1130	258	7.7	4.0	55	10.7
10...	1335	1050	280	7.9	5.5	50	11.2
18...	1115	1440	257	6.4	7.5	85	9.8
22...	1100	1150	234	7.6	.0	60	12.5
30...	1410	190	463	7.7	.5	8	12.1
DEC							
08...	1100	860	309	8.0	.5	9	12.2
15...	1410	1160	262	7.8	1.0	15	11.6
20...	1120	1080	258	7.2	.0	10	12.5
FEB							
14...	1415	1500	213	7.3	.0	10	11.4
MAR							
31...	1100	1380	302	7.7	6.0	70	13.1
APR							
18...	1120	1570	341	7.8	19.0	95	9.3
MAY							
09...	1415	2120	265	7.5	21.0	150	8.3
JUN							
07...	0930	970	333	8.2	19.5	--	--
20...	1330	931	295	8.2	27.0	120	9.1
JUL							
07...	1040	240	377	7.2	29.5	50	8.8
12...	1150	880	300	8.1	26.5	140	8.6
20...	1310	243	390	8.2	29.5	50	7.0
26...	0830	396	343	8.2	20.0	--	--
AUG							
01...	1055	270	350	8.1	23.0	50	9.3
08...	1040	469	321	8.0	25.0	95	8.2
18...	1050	640	301	7.8	20.5	120	9.0
23...	1340	1180	286	7.5	22.5	140	8.7
SEP							
02...	1340	3330	213	7.3	20.0	210	8.2
08...	1210	640	306	8.2	24.5	55	10.3
13...	1135	1720	--	7.2	17.5	210	--
21...	1320	604	328	7.6	19.5	40	9.8
22...	1615	660	350	8.2	23.0	--	--
26...	1100	998	263	7.6	18.0	40	10.0

DATE	TIME	COLOR (PLATINUM-COBALT UNITS) (00080)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)
FEB												
14...	1415	8	0	30	4.6	6.8	.3	5.6	125	0	103	10
JUN												
07...	0930	35	0	65	7.0	17	.4	8.9	180	0	150	14
JUL												
12...	1150	87	0	81	7.0	10	.4	10	160	0	130	17
26...	0830	--	0	86	8.0	11	.4	--	200	0	164	17
SEP												
22...	1615	--	0	68	7.5	11	.4	--	190	--	156	14

DATE	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED FLUORIDE (F) (MG/L) (00950)	DISSOLVED SILICA (SIO2) (MG/L) (00955)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DISSOLVED SOLIDS (TONS PER DAY) (70302)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)	DISSOLVED BORON (B) (UG/L) (01020)	DISSOLVED IRON (FE) (UG/L) (01046)	DISSOLVED MANGANESE (MN) (UG/L) (01056)
FEB											
14...	1.3	.3	42	164	668	.22	.33	.13	20	--	--
JUN											
07...	3.7	.4	49	229	600	.31	.12	.23	50	40	0
JUL											
12...	4.8	.3	38	211	832	.29	.93	.25	70	--	--
26...	3.5	--	--	--	--	--	.27	--	--	--	--
SEP											
22...	9.1	--	--	--	--	--	.90	--	--	--	--

06786000 NORTH LOUP RIVER AT TAYLOR, NE

LOCATION.--Lat 41°46'37", long 99°22'45", in NE1/4SE1/4 sec.22, T.21 N., R.18 W., Loup County, Hydrologic Unit 10210006, on left bank 66 ft (20 m) downstream from bridge on U.S. Highway 183 and 0.4 mi (0.6 km) north of Taylor.

DRAINAGE AREA.--2,280 mi² (5,910 km²), approximately, of which about 180 mi² (470 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1936 to current year.

REVISED RECORDS.--WSP 856: 1937. WSP 1310: 1939(M). WSP 1730: 1956-57(M). WSP 1918: 1952. WDR NE-72: Drainage area. WDR NE-75: 1974.

GAGE.--Water-stage recorder. Datum of gage is 2,248.21 ft (685.254 m) above mean sea level. Prior to Sept. 28, 1938, nonrecording gage at same site and datum. Sept. 28, 1938, to July 16, 1950, water-stage recorder at site 450 ft (137 m) upstream at same datum.

REMARKS.--Records fair except those for winter period, which are poor. North Loup Public Power and Irrigation District canal began diversion from river in April 1939 at point 5 mi (8 km) above station. Several smaller diversions above station for irrigation.

AVERAGE DISCHARGE.--40 years (1937-77), 458 ft³/s (12.97 m³/s), 331,800 acre-ft/yr (0.409 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,870 ft³/s (81.3 m³/s) May 7, 1977, gage height, 5.98 ft (1.823 m), from floodmark, but may have been greater during ice breakup Mar. 10, 1955; maximum gage height, 9.5 ft (2.90 m) Feb. 25, 1957, ice jam, from floodmarks; minimum daily discharge, 45 ft³/s (1.27 m³/s) July 26, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,870 ft³/s (81.3 m³/s) May 7, gage height, 5.98 ft (1.823 m), from floodmark; maximum gage height, 6.23 ft (1.899 m) Feb. 12, backwater from ice; minimum daily discharge, 194 ft³/s (5.49 m³/s) July 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	432	455	430	390	480	510	589	525	515	259	225	480
2	425	448	400	406	500	470	627	517	454	238	226	416
3	432	448	420	426	540	494	455	505	413	227	222	425
4	432	432	410	430	520	376	536	494	392	218	244	390
5	418	425	390	450	490	383	502	494	375	204	237	383
6	432	432	330	476	450	485	502	485	359	230	270	425
7	470	425	370	480	500	608	608	941	357	218	277	415
8	485	418	380	460	540	738	608	1190	358	218	277	402
9	502	425	440	420	560	728	570	909	353	249	355	393
10	485	418	390	380	560	646	570	672	355	425	379	384
11	485	410	450	390	600	921	580	609	408	589	359	383
12	478	396	410	410	560	893	618	531	436	478	367	384
13	462	362	460	420	580	410	611	470	503	362	389	397
14	470	376	480	430	540	519	666	463	580	299	388	401
15	448	403	470	408	560	548	673	554	519	281	385	390
16	432	448	520	370	600	627	756	487	455	265	399	390
17	418	462	540	390	640	839	737	437	478	243	406	396
18	432	536	540	390	519	827	658	415	589	222	401	395
19	432	544	480	430	519	839	756	508	562	204	424	401
20	462	502	370	450	519	718	938	507	519	194	429	388
21	467	470	360	440	470	589	1130	779	494	376	377	395
22	473	425	380	470	519	618	981	924	618	312	400	411
23	478	425	400	500	519	623	824	803	544	293	471	404
24	470	448	440	490	528	651	700	558	519	299	466	438
25	478	494	470	490	528	818	577	533	462	349	881	409
26	455	478	520	540	536	888	540	554	425	316	971	405
27	462	270	620	540	536	860	537	666	383	293	636	436
28	462	260	580	410	519	904	510	774	376	296	506	446
29	478	430	560	390	---	816	492	633	342	276	466	470
30	440	460	450	400	---	760	501	682	312	260	424	576
31	455	---	370	450	---	738	---	640	---	245	589	---
TOTAL	14150	12925	13830	13500	14980	20840	19352	19259	13457	8940	12846	12446
MEAN	456	431	446	435	535	672	645	621	449	288	414	415
MAX	502	544	620	540	640	921	1130	1190	618	589	971	576
MIN	418	260	330	370	450	376	455	415	312	194	222	363
AC-FT	28070	25640	27430	26780	29710	41340	38380	38200	26690	17730	25480	24690

CAL YR 1976 TOTAL 153357 MEAN 419 MAX 850 MIN 110 AC-FT 304200
WTR YR 1977 TOTAL 176525 MEAN 484 MAX 1190 MIN 194 AC-FT 350100

06786000 NORTH LOUP RIVER AT TAYLOR, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1976 to current year.
WATER TEMPERATURES: July 1976 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 552 micromhos Mar. 2, 1977; minimum daily, 81 micromhos Nov. 16, 1976.
WATER TEMPERATURES: Maximum, 31.5°C July 16, 17, 1977; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 552 micromhos Mar. 2; minimum daily, 73 micromhos Nov. 16.
WATER TEMPERATURES: Maximum, 31.5°C July 16, 17; minimum, 0.0°C onmany days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)
OCT 25...	1515	456	154	8.1	7.0	3	64	0	21	2.9
NOV 17...	1535	448	145	6.4	8.5	6	59	0	19	2.8
DEC 07...	1210	362	152	7.0	.5	8	69	0	22	3.4
JAN 18...	1400	401	167	7.7	.5	4	61	0	20	2.7
FEB 28...	1530	543	155	8.1	2.5	12	62	0	20	2.9
MAR 22...	1420	461	159	8.1	10.0	55	65	0	21	3.1
APR 11...	1435	588	183	8.5	19.5	55	72	0	23	3.6
MAY 03...	1400	508	178	8.3	21.0	25	75	0	24	3.7
JUN 13...	1435	491	169	7.8	25.5	14	71	0	23	3.3
JUL 29...	1330	308	173	7.7	23.5	8	71	0	23	3.2
AUG 15...	1335	380	166	7.8	24.0	12	70	0	23	3.0
SEP 27...	1400	441	159	7.6	18.5	8	67	0	22	3.0

DATE	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED FLUORIDE (F) (MG/L) (00950)
OCT 25...	5.9	.3	5.1	93	0	76	5.1	1.0	.3
NOV 17...	5.9	.3	5.4	81	0	66	3.5	1.0	.3
DEC 07...	6.8	.3	6.1	88	0	72	6.6	.9	.4
JAN 18...	5.8	.3	4.9	90	0	74	5.4	.9	.2
FEB 28...	5.9	.3	5.6	86	0	71	6.6	1.0	.3
MAR 22...	6.8	.4	6.7	89	0	73	9.3	1.0	.4
APR 11...	8.5	.4	7.7	110	0	90	12	1.9	.6
MAY 03...	7.2	.4	6.7	100	0	82	6.6	1.3	.5
JUN 13...	6.6	.3	6.0	97	0	80	5.9	.9	.4
JUL 28...	6.3	.3	6.0	99	0	81	3.8	1.0	.4
AUG 15...	6.2	.3	5.9	94	0	77	5.9	1.0	.4
SEP 27...	6.0	.3	5.9	94	0	77	3.6	1.1	.3

06786000 NORTH LOUP RIVER AT TAYLOR, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)
OCT									
25...	56	147	.20	181	.71	.13	20	20	0
NOV									
17...	55	136	.19	165	.61	.15	20	20	330
DEC									
07...	59	153	.21	150	1.1	.15	20	30	10
JAN									
18...	56	144	.20	156	.87	.17	10	30	10
FEB									
28...	51	139	.19	204	.71	.22	20	80	10
MAR									
22...	47	143	.19	255	.61	.24	40	70	20
APR									
11...	51	163	.22	257	.19	.14	50	70	10
MAY									
03...	52	153	.21	207	.35	.15	40	80	0
JUN									
13...	53	147	.20	195	.04	.06	30	50	0
JUL									
28...	56	150	.20	125	.26	.10	30	50	0
AUG									
15...	55	149	.20	153	.43	.14	30	50	0
SEP									
27...	57	148	.20	176	.57	.13	30	10	1

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	184	143	154	143	152	108	232	182	235	188	213	209
2	177	89	132	138	156	552	204	186	204	172	187	208
3	177	87	108	151	158	529	204	168	197	195	187	208
4	168	88	127	172	155	173	199	175	198	175	180	208
5	169	87	134	88	158	165	225	167	189	198	177	208
6	169	103	134	262	163	157	208	169	188	183	181	208
7	180	140	121	260	158	159	204	173	193	188	178	209
8	174	104	118	267	162	184	201	178	193	188	178	208
9	171	107	82	285	146	165	197	145	188	168	172	210
10	174	98	116	270	146	155	224	157	137	150	170	213
11	173	89	120	273	147	153	318	157	133	178	177	211
12	169	127	126	277	145	156	207	175	148	170	179	210
13	170	94	120	144	138	162	206	175	145	175	175	208
14	174	140	133	288	138	162	204	203	148	208	175	210
15	170	126	122	178	145	165	206	167	147	183	182	208
16	169	73	120	172	151	447	195	165	147	188	177	224
17	174	98	124	163	153	187	193	157	148	188	180	208
18	167	111	121	165	162	173	188	165	148	188	178	208
19	169	101	118	163	158	167	197	173	148	190	170	206
20	166	105	116	165	162	183	194	127	152	198	174	212
21	181	108	127	167	155	167	188	148	156	180	177	206
22	173	149	130	113	172	175	184	158	145	185	172	212
23	179	140	172	165	156	174	228	158	148	186	165	202
24	165	138	107	157	158	170	228	168	148	173	172	203
25	166	144	100	162	88	177	230	178	148	175	152	208
26	166	140	89	160	156	182	198	178	153	178	152	208
27	165	138	108	142	93	189	187	178	154	180	157	208
28	165	146	98	156	159	184	185	177	154	178	168	208
29	170	140	132	183	---	166	208	175	157	178	175	203
30	170	148	128	183	---	185	184	169	157	178	176	187
31	164	---	123	183	---	184	---	181	---	178	160	---

PLATTE RIVER BASIN

06786000 NORTH LOUP RIVER AT TAYLOR, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.0	12.0	3.0	0.0	3.0	3.0	7.0	20.0	29.5	26.5	20.5	21.0
2	10.0	8.0	3.0	0.0	3.5	2.5	7.0	22.0	19.0	27.5	20.5	18.0
3	10.0	8.0	2.0	0.0	3.5	2.5	10.0	22.0	27.5	22.0	27.0	17.5
4	10.0	7.0	2.0	1.0	5.0	3.0	12.0	20.0	25.0	27.5	27.5	27.0
5	9.0	8.0	3.0	1.0	4.5	2.5	14.0	19.0	30.0	31.0	22.5	26.5
6	9.0	9.0	1.0	0.0	4.5	10.0	14.0	22.0	23.0	29.0	20.5	28.0
7	10.0	10.0	2.0	0.0	4.5	10.5	14.0	22.0	23.5	27.0	27.5	24.0
8	7.0	6.0	3.0	0.0	4.5	10.0	15.0	22.0	21.0	27.0	27.0	24.5
9	10.0	6.0	3.0	0.0	4.0	9.0	12.0	17.0	24.5	25.5	27.5	20.5
10	11.0	6.0	3.0	0.0	4.0	7.0	12.0	18.0	20.5	26.5	18.0	20.0
11	12.0	6.0	0.0	0.0	4.0	9.0	10.0	21.0	27.0	29.0	22.5	20.0
12	13.0	6.0	0.0	1.0	2.0	9.0	10.0	21.0	21.0	28.0	27.0	20.0
13	12.0	5.0	0.0	1.0	2.5	9.0	10.0	21.0	25.5	27.0	28.0	23.0
14	10.0	5.0	0.0	4.0	2.5	9.0	10.0	16.0	24.0	23.5	23.5	20.0
15	10.0	4.0	0.0	0.0	2.0	10.0	10.0	22.0	27.0	29.5	25.5	20.0
16	10.0	4.0	0.0	0.0	0.5	6.0	10.0	22.0	25.5	31.5	23.0	20.5
17	10.0	8.0	0.0	2.0	0.5	6.0	12.0	16.5	24.5	31.5	24.5	24.0
18	6.0	6.0	0.0	1.5	6.0	3.0	14.0	19.0	20.0	27.5	23.0	16.0
19	6.0	5.0	0.0	1.5	6.0	0.0	12.0	19.0	27.0	30.0	25.5	19.5
20	6.0	4.0	0.0	1.5	6.0	0.0	10.0	18.0	24.5	28.5	28.0	21.0
21	6.0	4.0	1.0	1.0	5.0	0.0	6.0	19.0	22.5	22.5	27.0	20.5
22	6.0	4.0	1.0	1.0	4.0	5.0	16.0	20.0	27.0	26.0	23.5	19.5
23	8.0	3.0	1.0	1.0	5.0	5.0	16.0	25.0	28.0	29.5	26.0	15.5
24	5.0	2.0	3.0	2.0	2.0	5.0	16.0	23.0	29.5	25.5	22.0	18.0
25	4.0	1.0	1.0	2.0	3.0	5.0	16.0	22.0	24.5	27.5	24.5	19.0
26	5.0	0.0	1.0	2.0	3.0	4.0	18.0	23.0	24.0	24.0	29.0	18.0
27	4.0	0.0	1.0	2.5	4.0	5.0	18.0	20.0	27.0	27.5	23.5	19.0
28	4.0	0.0	4.0	1.0	4.0	5.0	17.0	25.0	25.5	25.5	18.0	17.5
29	4.0	0.0	0.0	1.0	---	5.0	17.0	25.0	26.0	29.0	23.0	18.0
30	5.0	1.0	0.0	1.0	---	4.0	18.0	23.0	23.0	26.5	24.5	19.5
31	10.0	---	0.0	1.0	---	4.0	---	25.0	---	27.0	23.5	---
TOTAL	252.0	148.0	38.0	30.0	103.0	168.0	383.0	646.5	741.5	842.0	755.5	615.5
MEAN	8.0	5.0	1.0	1.0	3.5	5.5	13.0	21.0	24.5	27.0	24.5	20.5
MAX	13.0	12.0	4.0	4.0	6.0	10.5	18.0	25.0	30.0	31.5	29.0	28.0
MIN	4.0	0.0	0.0	0.0	0.5	0.0	6.0	16.0	19.0	22.0	18.0	15.5

WTR YR 1977 TOTAL 4719.0 MEAN 13.0 MAX 31.5 MIN 0.0

06787500 CALAMUS RIVER NEAR BURWELL, NE

LOCATION.--Lat 41°48'35", long 99°10'56", in NE1/4SE1/4 sec.9, T.21 N., R.16 W., Garfield County, Hydrologic Unit 10210008, on left bank 250 ft (76 m) (Revised) downstream from highway bridge, 1.5 mi (2.4 km) upstream from mouth, and 3 mi (5 km) northeast of Burwell.

DRAINAGE AREA.--1,060 mi² (2,750 km²), approximately, of which about 110 mi² (280 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 1918: 1958. WDR NE-72: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,156.40 ft (657.295 m) above mean sea level (levels by Bureau of Reclamation). Prior to Apr. 20, 1965, nonrecording gage at site 250 ft (76 m) (Revised) upstream at present datum. Apr. 21, 1965, to Jan. 20, 1966, water-stage recorder at site 170 ft (52 m) downstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation above station.

AVERAGE DISCHARGE.--37 years, 299 ft³/s (8.468 m³/s), 216,600 acre-ft/yr (0.267 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,790 ft³/s (50.7 m³/s) May 4, 1960, gage height, 4.35 ft (1.326 m); maximum gage height, 5.90 ft (1.798 m) Jan. 26, 1967, backwater from ice; minimum daily discharge, 54 ft³/s (1.53 m³/s) Dec. 5, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 670 ft³/s (19.2 m³/s) May 22, gage height, 4.06 ft (1.237 m); maximum gage height, 4.52 ft (1.378 m) Feb. 5, backwater from ice; minimum daily discharge, 150 ft³/s (4.25 m³/s) Nov. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	282	282	270	200	320	326	350	327	381	280	267	381
2	273	284	250	210	340	320	348	309	353	273	267	348
3	275	281	320	220	350	316	331	312	326	271	263	336
4	280	278	280	210	350	288	320	308	311	266	263	311
5	282	285	250	200	340	293	311	302	298	257	255	306
6	289	280	240	220	320	293	306	297	284	259	251	305
7	291	283	250	230	350	306	306	303	280	271	251	301
8	286	293	270	220	380	311	306	326	275	267	255	306
9	281	295	300	200	400	316	290	307	271	280	259	300
10	283	293	270	180	380	320	296	376	275	384	251	294
11	282	297	310	190	374	370	293	385	284	415	259	294
12	273	298	280	200	372	411	290	321	289	370	263	298
13	270	284	320	210	357	393	306	281	328	350	259	303
14	271	313	330	220	338	381	356	264	308	320	267	298
15	260	296	310	180	336	375	353	318	290	312	274	290
16	259	298	330	160	332	381	386	270	292	300	271	287
17	255	299	330	190	333	364	377	251	328	289	267	293
18	267	303	330	200	327	362	380	264	361	276	259	290
19	271	305	280	220	330	342	380	277	315	266	259	291
20	275	306	240	250	326	336	454	281	306	263	255	287
21	271	300	260	250	325	332	479	423	318	340	251	293
22	275	295	270	270	331	320	491	630	327	292	267	287
23	280	293	280	280	335	326	521	627	334	283	275	286
24	280	296	280	280	340	326	467	565	333	294	267	281
25	280	296	290	280	337	316	410	512	316	300	449	278
26	281	298	290	290	335	316	379	449	310	326	442	275
27	285	220	310	300	326	311	363	387	304	335	387	272
28	283	150	290	280	321	326	350	366	297	426	370	284
29	280	180	270	250	---	301	367	342	292	399	358	298
30	285	210	280	260	---	359	361	387	284	320	362	323
31	282	---	180	300	---	353	---	411	---	280	399	---
TOTAL	8585	8389	8680	7150	9613	10456	10895	11464	9260	9660	9022	8992
MEAN	277	280	280	231	343	337	363	369	309	312	291	300
MAX	291	313	330	300	400	411	521	630	381	426	449	381
MIN	255	150	180	160	320	288	293	264	271	257	251	272
AC-FT	17030	16640	17220	14180	19070	20740	21610	22700	18380	19160	17900	17840

CAL YR 1976 TOTAL 106272 MEAN 290 MAX 439 MIN 90 AC-FT 210800
WTR YR 1977 TOTAL 112162 MEAN 307 MAX 630 MIN 150 AC-FT 222500

06787500 CALAMUS RIVER NEAR BURWELL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1972 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1971 to current year.
WATER TEMPERATURES: October 1971 to current year.

REMARKS.--Daily water temperatures for 1977 water year have been published because data was missing for over 60 percent of the days.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 221 micromhos May 17, 1972; minimum daily, 105 micromhos Aug. 13, 1976.
WATER TEMPERATURES: Maximum, 32.0°C June 30, 1973; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 160 micromhos May 1; minimum daily, 129 micromhos Nov. 15.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	TURBIDITY (JTU) (00070)	HARDNESS (CA,MG) (MG/L) (00900)	NON-CARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)
OCT 25...	1200	284	156	8.2	5.5	--	5	--	--	--	--	--
NOV 15...	1500	292	129	6.5	4.5	5	7	50	0	16	2.4	5.7
DEC 07...	0900	281	160	8.0	.5	--	6	--	--	--	--	--
JAN 18...	1115	182	150	7.5	.5	6	6	68	0	22	3.2	6.3
FEB 28...	1020	318	159	7.9	2.0	--	8	--	--	--	--	--
MAR 22...	1000	326	156	8.0	6.0	35	10	54	0	17	2.8	5.6
APR 11...	1125	290	105	8.3	17.5	25	10	59	0	19	2.7	6.2
MAY 03...	1020	312	166	8.5	16.0	8	10	60	0	19	3.0	6.1
JUN 13...	1110	332	107	7.4	21.0	12	15	56	0	18	2.8	6.0
JUL 20...	1000	433	136	7.8	20.5	35	25	52	0	17	2.2	5.3
AUG 15...	1005	277	150	7.5	20.5	--	10	--	--	--	--	--
SEP 27...	1110	275	135	7.1	15.5	6	7	57	0	19	2.4	5.6

DATE	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED FLUORIDE (F) (MG/L) (00950)	DISSOLVED SILICA (SIO2) (MG/L) (00955)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	DISSOLVED SOLIDS (TONS PER DAY) (70302)
OCT 25...	--	--	--	--	--	--	--	--	--	--	--	--
NOV 15...	.4	5.6	69	0	57	6.2	.9	.2	50	118	.16	93.0
DEC 07...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 18...	.3	5.0	87	0	71	7.0	1.1	.3	62	155	.21	76.2
FEB 28...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 22...	.3	5.5	78	0	64	6.0	1.1	.2	65	122	.17	107
APR 11...	.4	5.3	82	0	67	11	1.5	.3	66	132	.18	104
MAY 03...	.3	5.0	84	0	69	6.6	.8	.3	66	126	.17	106
JUN 13...	.3	5.5	78	0	64	6.5	.7	.2	66	125	.17	112
JUL 20...	.3	6.0	73	0	60	6.8	1.0	.2	60	112	.15	131
AUG 15...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 27...	.3	5.0	80	0	66	7.7	1.1	.2	50	127	.17	94.3

06787500 CALAMUS RIVER NEAR BURWELL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO-GEN (N) (MG/L) (00605)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L) (00625)	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOL-VED PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)
OCT											
25...	--	--	--	--	--	--	--	--	--	--	--
NOV											
15...	.98	--	.01	.80	.81	1.3	.17	.14	10	20	0
DEC											
07...	--	--	--	--	--	--	--	--	--	--	--
JAN											
18...	--	.94	--	--	--	--	--	.16	20	--	--
FEB											
28...	--	--	--	--	--	--	--	--	--	--	--
MAR											
22...	--	.52	--	--	--	--	--	.17	30	--	--
APR											
11...	--	.32	--	--	--	--	--	.18	20	--	--
MAY											
03...	.48	--	.01	1.3	1.3	1.8	.23	.18	30	60	10
JUN											
13...	--	.51	--	--	--	--	--	.15	20	--	--
JUL											
28...	--	.28	--	--	--	--	--	.13	30	--	--
AUG											
15...	--	--	--	--	--	--	--	--	--	--	--
SEP											
27...	--	.43	--	--	--	--	--	.12	20	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	138	145	147	137	178	158	188	184	148	160	153
2	148	135	142	140	133	138	158	144	168	146	142	152
3	147	140	143	132	134	152	159	165	168	152	148	148
4	146	137	150	133	135	157	159	154	160	149	143	150
5	146	135	140	132	138	158	158	153	165	152	142	153
6	145	140	137	143	137	155	148	157	162	155	143	152
7	146	138	170	143	138	175	143	161	161	155	143	152
8	147	138	138	147	133	148	144	163	158	155	142	150
9	142	135	138	143	135	147	147	160	155	154	146	148
10	145	134	138	144	138	148	148	164	154	154	145	149
11	143	136	142	132	141	176	145	158	152	154	145	147
12	144	135	144	130	143	155	148	165	149	156	146	150
13	145	138	138	135	137	153	146	173	147	156	142	151
14	142	133	141	133	138	154	145	158	146	152	148	148
15	143	129	140	136	138	148	148	170	144	154	140	147
16	144	132	142	138	138	148	147	183	144	152	143	148
17	142	133	143	143	143	158	144	176	143	148	148	147
18	142	131	140	150	144	159	145	180	142	150	147	148
19	141	132	140	143	139	162	150	170	144	150	154	143
20	142	133	143	148	137	159	152	175	145	150	153	145
21	142	136	143	148	138	165	149	168	144	149	162	143
22	138	134	148	144	137	136	148	165	144	148	168	144
23	140	139	143	148	140	158	148	155	141	148	167	140
24	140	138	143	135	143	146	150	158	147	147	173	145
25	141	136	148	136	142	167	152	152	145	148	171	142
26	139	137	145	142	150	138	158	158	145	157	157	140
27	140	140	141	152	143	154	155	159	144	153	160	135
28	138	140	147	152	143	156	148	158	143	134	158	140
29	139	140	138	155	---	159	157	158	148	158	157	142
30	139	143	145	152	---	157	162	159	145	161	157	146
31	140	---	140	152	---	154	---	159	---	158	157	---

06788500 NORTH LOUP RIVER AT ORD, NE

LOCATION.--Lat 41°36'27", long 98°55'17", in SW1/4NW1/4 sec.22, T.19 N., R.14 W., Valley County, Hydrologic Unit 10210007, on right bank 150 ft (46 m) downstream from bridge on State Highway 70 at Ord.

DRAINAGE AREA.--3,750 mi² (9,710 km²), approximately, of which about 700 mi² (1,810 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--November 1936 to September 1938 (published as "near Ord"), June 1952 to current year.

REVISED RECORDS.--WSP 1730: 1957(M). WDR NE-74: Drainage area. WDR NE-75: 1974.

GAGE.--Water-stage recorder. Datum of gage is 2,012.14 ft (613.300 m) above mean sea level. Nov. 25, 1936, to Sept. 30, 1938, nonrecording gage at site 2 mi (3 km) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation. Flow includes return water from North Loup irrigation project.

AVERAGE DISCHARGE.--26 years (1937-38, 1952-77), 862 ft³/s (24.41 m³/s), 624,500 acre-ft/yr (0.770 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s (286 m³/s) June 7, 1962, gage height, 5.52 ft (1.682 m); maximum gage height, 5.56 ft (1.695 m) Feb. 9, 1966, backwater from ice; minimum daily discharge, 100 ft³/s (2.83 m³/s) Jan. 3, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,420 ft³/s (96.9 m³/s) Aug. 31, gage height, 4.35 ft (1.326 m); maximum gage height, 4.39 ft (1.338 m) Feb. 12, backwater from ice; minimum daily discharge, 330 ft³/s (9.35 m³/s) Nov. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	803	900	580	620	860	768	1210	1030	1260	533	665	1390
2	799	887	720	660	860	850	1220	1020	1060	443	605	1070
3	803	876	880	680	960	886	1270	1010	924	440	600	1240
4	799	850	800	700	920	866	1290	967	850	391	556	957
5	791	848	740	720	880	826	1230	948	800	395	602	891
6	773	887	700	760	840	910	1210	938	790	372	609	870
7	788	870	780	800	900	1030	1180	953	790	443	644	880
8	790	830	700	720	980	1160	1120	1610	780	488	627	880
9	790	798	820	640	1100	1260	1090	1530	771	472	775	852
10	790	799	740	560	1250	1180	1080	1460	771	990	775	837
11	771	793	820	580	1200	1330	1040	1300	810	1710	768	835
12	762	832	760	620	1100	1580	1080	1140	913	1150	724	873
13	762	711	780	660	1200	1160	1100	1000	990	880	712	891
14	753	608	820	740	1100	1090	1300	948	957	699	762	867
15	800	706	860	640	1000	1230	1220	1120	1000	664	816	877
16	820	754	900	580	1080	1160	1250	956	894	622	810	876
17	840	839	960	600	1120	1300	1290	877	913	541	772	875
18	850	883	1000	620	1160	1390	1280	824	1030	502	748	835
19	870	945	860	660	1350	1340	1200	988	1000	394	726	864
20	860	899	700	800	1500	1300	1560	993	935	372	762	876
21	840	844	720	800	1700	1200	1520	1720	946	1880	753	870
22	840	784	760	840	931	1210	1520	1790	924	820	771	894
23	820	829	760	860	947	1270	1480	1750	1030	637	830	904
24	850	872	780	800	979	1220	1340	1440	946	637	913	941
25	860	847	820	800	846	1180	1240	1320	924	821	2380	860
26	880	873	860	800	929	1210	1100	1280	800	743	2050	855
27	893	640	1000	840	919	1230	1050	1250	753	732	1600	860
28	879	330	900	740	893	1290	1010	1290	648	763	1270	885
29	905	350	820	640	---	1470	1010	1290	648	841	1120	913
30	929	400	680	700	---	1320	1030	1320	557	704	1150	997
31	915	---	600	660	---	1220	---	1420	---	695	2560	---
TOTAL	25625	23284	24620	22000	29504	36456	36500	37482	26414	21774	29455	27515
MEAN	827	776	794	710	1054	1176	1217	1209	880	702	950	917
MAX	929	945	1000	860	1700	1580	1560	1790	1260	1880	2560	1390
MIN	753	330	580	560	840	768	1010	824	557	372	556	835
AC-FT	50830	46180	48830	43640	56520	72310	72400	74350	52390	43190	58420	54580

CAL YR 1976 TOTAL 281166 MEAN 768 MAX 1700 MIN 100 AC-FT 557700
WTR YR 1977 TOTAL 340629 MEAN 933 MAX 2560 MIN 330 AC-FT 675600

06790500 NORTH LOUP RIVER NEAR ST. PAUL, NE

LOCATION.--Lat 41°15'35", long 98°26'50", in NW1/4NW1/4NE1/4 sec.22, T.15 N., R.10 W., Howard County, Hydrologic Unit 10210007, on right bank 310 ft (94 m) downstream from bridge on U.S. Highway 281, 3 mi (5 km) north of St. Paul, and 4 mi (6 km) upstream from confluence with Middle Loup River.

DRAINAGE AREA.--4,290 mi^2 (11,100 km^2), approximately, of which about 1,240 mi^2 (3,210 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1894 to September 1915, August 1928 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 976: 1942. WSP 1390: 1896. WDR NE-74: Drainage area. WDR NE-75: 1974.

GAGE.--Water-stage recorder. Datum of gage is 1,759.29 ft (536.232 m), adjusted, above mean sea level. See WSP 1918 for history of changes prior to Oct. 1, 1954.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by diversions and ground-water withdrawals for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--70 years, 968 ft^3/s (27.41 m^3/s), 701,300 acre-ft/yr (0.865 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90,000 ft^3/s (2,550 m^3/s), estimated, June 6, 1896, gage height, 14.9 ft (4.54 m), from floodmark, datum then in use; minimum daily since 1931, 85 ft^3/s (2.41 m^3/s) Aug. 8, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,640 ft^3/s (103 m^3/s) Aug. 31, gage height, 5.24 ft (1.597 m); maximum gage height, 5.75 ft (1.753 m) Feb. 20, backwater from ice; minimum daily discharge, 100 ft^3/s (2.83 m^3/s) Nov. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	763	916	250	720	860	994	1240	951	1550	541	559	2060
2	819	901	440	740	920	1020	1610	965	1200	466	547	1290
3	801	903	700	760	1060	1080	1340	1040	1030	389	472	1950
4	829	890	1000	780	1000	1080	1500	940	928	354	693	1450
5	834	893	900	760	940	893	1460	893	858	311	649	1020
6	859	865	760	840	900	858	1260	840	794	292	719	900
7	847	867	860	860	1000	942	1170	831	782	282	587	824
8	818	836	840	800	1100	1100	1110	850	792	844	601	813
9	823	845	860	720	1250	1330	1080	1840	790	480	618	813
10	821	848	820	600	1350	1530	1050	1660	752	710	746	779
11	808	944	860	840	1300	1580	1030	1580	710	1180	734	782
12	782	948	800	660	1200	2260	1050	1330	806	1510	734	848
13	741	893	840	740	1350	1620	1180	1080	956	1020	700	866
14	723	967	880	800	1220	1140	2050	970	970	830	758	869
15	724	1010	860	760	1140	1150	1890	956	956	700	1110	851
16	720	1110	980	840	1180	1210	1320	1150	1020	640	2010	905
17	680	1070	1020	700	1300	1240	1300	1010	986	572	1070	945
18	699	938	1060	760	1400	1540	1310	900	1050	501	886	932
19	748	963	960	820	1450	1580	1330	1000	1080	464	830	843
20	757	1030	780	940	1600	1340	1840	1110	1030	354	806	805
21	779	1070	740	900	1750	1230	1980	1420	1030	415	806	825
22	795	1010	800	880	2100	1150	1960	1730	1010	1350	830	889
23	800	932	800	960	2540	1120	1770	1740	945	734	885	886
24	837	956	860	880	1970	1050	1700	1850	1080	592	914	885
25	808	911	880	660	1290	1050	1500	1450	974	583	1270	916
26	842	900	940	840	1010	1220	1290	1450	915	660	2030	807
27	911	800	1100	960	1100	1350	1110	1550	788	592	1640	778
28	921	300	1180	780	1040	1450	1010	1410	730	574	1270	776
29	898	100	940	700	---	1710	940	1370	637	610	986	817
30	921	130	840	740	---	1630	934	1530	620	690	886	949
31	909	---	700	780	---	1310	---	1850	---	583	1770	---
TOTAL	25017	25746	26250	24360	36320	39757	41314	39246	27769	19823	29116	29073
MEAN	807	858	847	786	1297	1282	1377	1266	926	639	939	969
MAX	921	1110	1180	960	2540	2260	2050	1850	1550	1510	2030	2060
MIN	680	100	250	600	860	858	934	831	620	282	472	776
AC-FT	49620	51070	52070	48320	72040	78860	81950	77840	55080	39320	57750	57670

CAL YR 1976 TOTAL 302979 MEAN 828 MAX 1900 MIN 100 AC-FT 601000
WTR YR 1977 TOTAL 363791 MEAN 997 MAX 2540 MIN 100 AC-FT 721600

06790500 NORTH LOUP RIVER NEAR ST. PAUL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-53, 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1974 to current year.
WATER TEMPERATURES: July 1974 to current year.
SUSPENDED SEDIMENT DISCHARGE: April 1946 to June 1953.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 426 micromhos Jan. 18, 1976; minimum daily, 159 micromhos Jan. 18, 1976.
WATER TEMPERATURES: Maximum 33.0°C on several days during summer periods; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 17,400 mg/L April 27, 1951; minimum daily, not determined.
SEDIMENT LOADS: Maximum daily, 463,000 tons (421,000 tonnes) June 22, 1947; minimum daily, 20 tons (18 tonnes) Aug. 3, 1976, Feb. 22, 1953.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 347 micromhos Dec. 27; minimum daily, 165 micromhos Apr. 18, 24.
WATER TEMPERATURES: Maximum, 33.0°C July 6, 18; minimum, 0.0°C on many daysduring winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)
OCT 21...	1430	798	208	7.4	8.5	3	90	0	29	4.2
NOV 22...	1405	981	186	7.4	.0	5	86	0	27	4.4
DEC 15...	1100	887	199	7.1	.5	7	81	0	26	3.8
JAN 12...	1410	668	232	7.0	.0	7	100	0	31	5.5
FEB 14...	1110	1290	171	6.9	.0	8	70	0	22	3.7
MAR 04...	1350	1120	205	7.3	.0	13	86	0	28	4.0
APR 18...	1400	1340	241	8.0	19.0	27	100	0	31	5.4
MAY 31...	1250	1820	267	7.4	22.0	85	120	0	36	6.8
JUN 27...	1135	796	205	7.9	28.0	22	91	0	29	4.4
JUL 12...	1440	1460	225	7.7	28.0	80	93	0	29	4.9
AUG 01...	1350	547	224	8.1	27.0	23	94	0	30	4.7
SEP 13...	1430	873	241	7.7	21.5	13	120	0	37	5.6

DATE	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED FLUORIDE (F) (MG/L) (00950)
OCT 21...	7.4	.3	5.8	124	0	102	6.8	1.3	.3
NOV 22...	7.3	.3	5.6	120	0	98	3.8	1.2	.3
DEC 15...	7.3	.4	6.0	116	0	95	7.7	1.2	.3
JAN 12...	8.2	.4	6.6	131	0	107	9.7	1.4	.4
FEB 14...	5.8	.3	5.2	98	0	80	6.6	1.1	.4
MAR 04...	7.0	.3	5.9	116	0	95	7.6	1.4	.3
APR 18...	9.1	.4	8.8	140	0	110	12	2.5	.4
MAY 31...	9.5	.4	9.7	150	0	120	10	3.2	.4
JUN 27...	7.8	.4	6.7	120	0	98	5.6	1.7	.4
JUL 12...	7.8	.4	8.9	120	0	98	12	3.1	.3
AUG 01...	8.1	.4	7.0	140	0	110	7.7	2.3	.3
SEP 13...	7.6	.3	7.7	150	0	120	6.9	2.2	.3

06790500 NORTH LOUP RIVER NEAR ST. PAUL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)
OCT 21...	52	171	.23	368	.76	.14	30	20	0
NOV 22...	47	159	.22	421	.74	.13	30	20	0
DEC 15...	58	167	.23	400	.81	.15	20	40	10
JAN 12...	64	196	.27	354	.95	.20	30	40	10
FEB 14...	43	139	.19	484	.63	.14	20	40	10
MAR 04...	48	163	.22	493	.79	.19	20	70	10
APR 18...	46	187	.25	677	.54	.19	50	110	10
MAY 31...	39	190	.26	934	.33	.40	60	40	20
JUN 27...	50	166	.23	357	.26	.06	40	30	0
JUL 12...	36	167	.23	381	1.2	.35	70	90	0
AUG 01...	51	180	.24	266	.04	.05	60	30	0
SEP 13...	51	194	.26	457	.47	.20	30	20	0

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	220	213	303	324	232	238	243	240	297	257	225	258
2	219	202	323	320	230	228	305	242	255	253	247	248
3	216	216	343	[illegible]	227	212	288	238	252	268	257	220
4	213	216	341	280	214	210	272	243	249	283	269	255
5	215	217	338	245	206	222	245	232	244	297	255	257
6	217	217	336	244	198	235	242	225	247	340	255	259
7	218	214	208	243	214	223	245	233	247	297	298	260
8	216	217	244	248	198	218	234	222	244	285	329	253
9	218	212	245	252	213	208	237	218	243	270	287	248
10	215	213	250	256	197	215	228	222	244	242	248	252
11	212	213	232	260	193	212	225	188	235	259	260	255
12	212	223	229	263	197	222	218	208	232	246	247	298
13	214	228	212	269	190	293	223	202	230	223	245	268
14	214	234	214	325	184	254	228	212	234	221	245	257
15	215	234	213	245	181	278	300	209	228	233	275	255
16	216	216	214	239	188	255	180	204	220	233	305	253
17	215	212	195	233	186	252	172	209	217	240	290	250
18	216	212	216	243	184	218	165	215	234	248	297	250
19	217	214	224	227	182	230	245	230	225	278	269	248
20	216	212	232	228	243	233	245	245	219	275	253	246
21	218	213	238	219	178	236	255	258	208	278	250	240
22	218	214	258	215	186	246	170	273	227	214	255	237
23	217	216	278	212	187	269	245	255	225	224	273	243
24	216	216	342	209	188	313	232	225	216	235	273	238
25	216	212	344	198	188	275	235	222	213	238	275	233
26	216	222	346	196	204	257	235	228	213	233	308	235
27	216	240	347	197	205	238	208	240	218	235	235	236
28	215	268	208	212	207	238	242	255	225	228	225	234
29	215	290	208	338	---	236	240	247	240	228	220	235
30	214	329	223	262	---	240	238	230	235	218	227	235
31	214	---	264	260	---	238	---	294	---	222	230	---

06790500 NORTH LOUP RIVER NEAR ST. PAUL, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	12.0	2.0	0.0	0.0	3.0	10.0	20.5	27.0	27.0	27.0	24.0
2	18.0	10.0	2.0	0.0	0.0	3.0	9.0	20.0	28.0	28.0	29.0	22.0
3	17.0	8.0	3.0	0.0	1.0	2.0	7.0	24.0	28.0	29.5	28.0	22.0
4	16.0	5.0	2.0	0.0	1.0	3.0	6.0	25.0	28.0	30.5	30.0	23.0
5	14.0	7.0	2.0	0.0	0.5	3.0	8.0	25.0	31.0	32.0	23.0	24.0
6	11.0	6.0	1.5	0.0	0.0	3.0	13.0	26.0	28.0	33.0	20.0	23.5
7	12.0	6.0	1.0	0.0	1.0	9.0	17.0	21.0	28.0	32.0	27.0	25.0
8	13.0	9.0	1.0	0.0	0.0	12.0	19.0	21.0	29.0	28.0	27.0	27.0
9	12.0	7.0	1.0	0.0	0.0	12.0	19.0	24.0	27.0	28.0	28.0	23.0
10	14.0	5.0	1.5	0.0	1.0	10.0	19.0	23.0	30.0	23.0	23.0	21.0
11	17.0	3.0	1.0	0.0	1.0	11.0	18.5	25.0	27.0	28.0	26.0	20.0
12	18.0	0.0	1.5	0.0	1.0	7.0	17.0	27.0	27.0	28.0	25.0	19.0
13	18.0	0.0	2.0	0.0	1.0	9.0	17.5	24.0	27.0	31.0	24.0	21.0
14	15.0	2.0	2.5	0.0	1.0	10.0	16.0	23.0	28.0	28.0	23.0	21.0
15	11.0	1.0	2.5	0.0	1.0	12.0	16.0	24.0	30.0	30.0	22.5	18.0
16	9.5	1.0	3.0	0.0	1.0	11.0	15.0	25.0	25.0	29.0	22.0	18.0
17	7.5	5.0	3.0	0.0	2.0	11.0	16.5	26.0	25.0	31.5	24.0	20.5
18	7.0	6.0	3.5	0.0	2.0	11.0	17.0	27.0	27.0	33.0	24.0	20.0
19	6.0	8.0	3.0	0.0	2.0	12.0	17.0	25.0	28.0	32.0	27.0	19.0
20	8.0	4.0	2.0	0.0	2.0	10.0	16.0	23.0	26.0	29.0	24.0	22.0
21	10.0	2.5	2.0	0.0	3.0	8.0	15.0	20.0	25.0	24.0	26.0	21.0
22	10.0	2.0	2.0	0.0	2.0	10.0	18.0	20.0	26.0	26.0	22.0	22.0
23	9.0	2.0	2.5	0.0	1.0	9.0	17.0	25.0	26.0	27.0	25.0	22.0
24	7.5	4.0	2.0	0.0	2.0	11.0	17.0	27.0	27.0	28.0	23.0	20.0
25	6.0	5.0	1.5	0.0	2.0	12.0	19.0	24.0	27.0	25.0	24.0	19.0
26	5.0	3.0	1.0	0.0	2.0	12.0	22.0	23.0	25.0	26.0	27.0	19.0
27	6.0	1.0	0.5	0.0	3.0	12.0	23.0	23.0	31.0	27.0	24.0	17.5
28	7.0	0.0	0.5	0.0	4.0	12.0	21.0	21.0	27.0	27.0	25.0	17.0
29	7.0	0.0	0.0	0.0	---	11.0	21.0	22.0	27.0	32.0	23.0	16.5
30	8.0	2.0	0.0	0.0	---	10.5	21.0	25.0	25.0	27.0	25.0	17.0
31	9.5	---	0.0	0.0	---	10.0	---	25.0	---	26.0	24.0	---

06791500 CEDAR RIVER NEAR SPALDING, NE

LOCATION.--Lat 41°42'41", long 98°26'48", in NE1/4NE1/4NE1/4 sec.15, T.20 N., R.10 W., Greeley County, Hydrologic Unit 10210010, on left bank 15 ft (5 m) downstream from bridge on county road, 0.4 mi (0.6 km) upstream from small tributary, and 4.7 mi (7.6 km) northwest of Spalding.

DRAINAGE AREA.--762 sq mi, approximately, of which about 50 mi^2 (130 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1944 to September 1953, October 1957 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-73: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,896.24 ft (577.974 m) above mean sea level. Prior to Jan. 4, 1961, at two sites 6.5 mi (10.5 km) upstream at different datum.

REMARKS.--Records good except those for winter periods, which are poor.

AVERAGE DISCHARGE.--29 years, 153 ft^3/s (4.333 m^3/s), 110,800 acre-ft/yr (0.137 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft^3/s (113 m^3/s) June 23, 1947, gage height, 7.50 ft (2.286 m), site and datum then in use, from rating curve extended above 640 ft^3/s (18.1 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 30 ft^3/s (0.85 m^3/s) Jan. 30, 1946.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft^3/s (8.50 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 14	2300	377	10.7	4.41	1.344
May 25	2030	*667	18.9	4.99	1.521

Minimum daily, 88 ft^3/s (2.49 m^3/s) Dec. 8.

REVISIONS.--The maximum discharge for the water year 1976 has been revised to 722 ft^3/s (20.4 m^3/s) June 23, 1976, gage height, 5.06 ft (1.542 m), superseding figure published in the report for 1976.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	131	130	110	130	130	130	170	139	180	139	128	230
2	130	130	116	135	140	135	155	136	178	136	130	202
3	133	126	135	130	145	143	177	145	178	134	131	176
4	134	125	140	125	160	146	174	141	166	130	131	183
5	132	128	130	125	150	140	164	123	166	124	131	175
6	129	129	116	125	140	146	156	130	155	120	128	159
7	129	128	90	130	145	145	153	131	147	108	128	149
8	129	128	88	110	155	147	150	134	141	118	130	142
9	129	131	110	104	175	147	145	132	139	120	167	135
10	124	129	120	110	180	151	140	129	134	168	161	127
11	125	126	130	114	185	165	135	126	136	241	148	127
12	123	120	125	116	135	205	137	127	148	217	142	128
13	129	120	130	120	130	200	142	127	157	194	139	129
14	131	125	135	130	132	183	221	126	150	178	141	128
15	130	136	140	120	125	178	285	127	145	175	152	128
16	125	134	150	104	133	171	195	130	162	167	172	129
17	120	134	170	110	139	163	181	138	212	154	160	139
18	125	137	200	110	138	159	162	128	219	141	152	132
19	126	137	140	120	136	160	168	153	219	131	146	130
20	129	136	94	135	136	160	211	173	200	127	141	129
21	127	135	120	130	139	156	226	305	198	198	137	128
22	127	136	125	125	139	156	223	280	210	171	146	129
23	128	134	130	135	144	153	205	266	235	173	147	129
24	128	137	135	130	146	150	211	322	241	155	146	124
25	128	140	140	125	146	148	215	459	227	171	169	121
26	129	138	145	120	141	149	191	588	202	159	169	125
27	129	96	145	130	136	149	163	471	176	146	173	125
28	130	100	135	100	132	167	136	367	160	141	172	126
29	130	110	130	106	---	197	142	287	150	141	175	127
30	132	120	94	114	---	210	141	264	144	135	166	133
31	131	---	125	125	---	192	---	217	---	129	248	---
TOTAL	3982	3835	3993	3743	4032	5001	5274	6521	5275	4741	4706	4244
MEAN	128	128	129	121	144	161	176	210	176	153	152	141
MAX	134	140	200	135	185	210	285	588	241	241	248	230
MIN	120	96	88	100	125	130	135	123	134	108	128	121
AC-FT	7900	7610	7920	7420	8000	9920	10460	12930	10460	9400	9330	8420

CAL YR 1976 TOTAL 52562 MEAN 144 MAX 295 MIN 87 AC-FT 104300
WTR YR 1977 TOTAL 55347 MEAN 152 MAX 588 MIN 88 AC-FT 109800

06792000 CEDAR RIVER NEAR FULLERTON, NE

LOCATION.--Lat 41°23'45", long 98°00'15", in NE1/4NE1/4 sec.4, T.16 N., R.6 W., Nance County, Hydrologic Unit 10210010, near left bank on downstream side of pier of highway bridge, 3 mi (5 km) northwest of Fullerton and 7.2 mi (11.6 km), revised, upstream from mouth.

DRAINAGE AREA.--1,220 mi^2 (3,160 km^2), approximately, of which about 480 mi^2 (1,240 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1931 to June 1932, October 1940 to current year.

REVISED RECORDS.--WSP 1086: Drainage area. WSP 1390: 1932, 1941, 1943. WSP 1710: 1951(P), 1952(M), 1953, 1955(M).

GAGE.--Water-stage recorder. Datum of gage is 1,638.39 ft (499.381 m) above mean sea level. Prior to Nov. 5, 1942, nonrecording gage, Nov. 5, 1942, to June 23, 1947, water-stage recorder, June 24, 1947, to Apr. 6, 1948, nonrecording gage, Apr. 7, 1948, to Apr. 15, 1971, water-stage recorder, all at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by power developments, ground-water and surface-water withdrawals for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--37 years (1940-77), 240 ft^3/s (6.797 m^3/s), 173,900 acre-ft/yr (0.214 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,700 ft^3/s (1,830 m^3/s) Aug. 13, 1966, gage height, 16.90 ft (5.151 m), present datum, from high point on surge, from rating curve extended above 6,600 ft^3/s (187 m^3/s) on basis of flow-over-highway-embankment and contracted-opening measurement of peak flow; minimum daily, 30 ft^3/s (0.85 m^3/s) July 18, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft^3/s (42.5 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 22	0330	1650	46.7	4.54	1.384
May 26	1700	1500	42.5	4.35	1.326
Aug. 31	2300	*1960	55.5	4.88	1.487

Minimum daily discharge, 84 ft^3/s (2.38 m^3/s) Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	180	140	140	185	170	286	223	441	157	109	815
2	146	170	135	150	205	190	376	199	307	144	85	356
3	163	167	150	150	230	200	305	216	352	130	84	302
4	160	154	145	140	210	200	283	226	314	125	87	269
5	150	172	140	140	190	190	274	223	294	107	135	200
6	150	161	130	150	170	190	234	205	283	97	183	217
7	154	165	125	170	165	200	228	184	268	86	143	203
8	156	168	125	160	230	203	217	192	227	124	153	186
9	162	164	150	120	260	271	212	198	221	108	653	171
10	162	165	140	130	300	243	205	201	211	133	565	167
11	159	154	150	140	290	262	184	193	195	567	262	171
12	156	147	165	135	280	305	205	186	192	623	216	216
13	167	122	180	165	300	319	208	185	349	340	175	212
14	152	121	200	160	260	290	285	185	386	276	178	182
15	150	132	190	145	230	278	417	184	265	199	183	174
16	150	181	195	118	275	234	404	189	227	183	370	176
17	159	205	220	125	320	235	339	190	576	162	421	202
18	154	164	250	135	310	231	295	189	746	153	210	226
19	158	173	200	155	300	239	289	270	388	116	188	218
20	165	180	180	160	290	243	344	557	314	88	173	193
21	171	167	160	160	400	231	372	822	324	108	168	184
22	184	165	170	170	340	230	276	851	291	194	169	180
23	168	178	165	190	300	220	357	397	261	199	175	183
24	179	209	185	175	270	210	290	400	285	201	169	197
25	163	186	185	170	250	202	276	403	320	969	248	203
26	180	198	180	165	220	204	242	763	297	279	261	178
27	163	120	200	160	200	198	292	894	284	206	229	180
28	172	130	180	145	180	219	254	589	230	151	215	179
29	171	140	150	135	---	279	198	475	176	159	210	161
30	172	150	120	135	---	299	206	619	164	138	211	186
31	173	---	130	160	---	274	---	643	---	114	957	---
TOTAL	5022	4891	5135	4633	7160	7259	8353	11251	9188	6636	7585	6687
MEAN	162	163	166	149	256	234	278	363	306	214	245	223
MAX	184	209	250	190	400	319	417	894	746	969	957	815
MIN	146	120	120	118	165	170	184	184	164	86	84	161
AC-FT	9960	9700	10190	9190	14200	14400	16570	22320	18220	13160	15040	13260

CAL YR 1976 TOTAL 66919 MEAN 183 MAX 1930 MIN 53 AC-FT 132700
WTR YR 1977 TOTAL 83800 MEAN 230 MAX 969 MIN 84 AC-FT 166200

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-59, 1976 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1976 to current year.
WATER TEMPERATURES: July 1976 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 380 micromhos Nov. 29, 1976; minimum daily, 160 micromhos Jan. 4, 1977.
WATER TEMPERATURES: Maximum, 36.0°C July 7, 1975; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 380 micromhos Nov. 29; minimum daily, 160 micromhos Jan. 4.
WATER TEMPERATURES: Maximum, 30.0°C July 28; minimum 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)
OCT										
19...	1215	160	272	8.1	5.0	7	120	0	36	6.6
NOV										
19...	0905	155	272	8.1	2.5	6	120	0	36	6.4
DEC										
20...	1510	208	319	8.6	.5	6	130	0	42	7.0
JAN										
11...	1345	138	310	8.4	.5	6	130	0	40	7.5
25...	1030	139	286	7.4	.5	5	130	0	40	6.5
FEB										
01...	1330	186	271	7.5	.5	7	120	0	38	6.5
MAR										
14...	1540	290	270	7.7	12.0	25	120	0	36	6.1
APR										
05...	1340	254	280	7.3	5.5	50	130	0	39	6.8
MAY										
17...	1430	186	284	8.3	24.5	23	130	0	41	6.6
JUN										
07...	1205	230	255	8.0	22.0	45	140	0	43	6.9
JUL										
19...	1030	117	236	8.2	25.0	50	110	0	33	5.8
AUG										
18...	1630	368	199	7.3	23.5	140	73	0	23	3.8
SEP										
20...	1410	176	308	8.0	19.0	13	130	0	40	6.3

DATE	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED FLUORIDE (F) (MG/L) (00950)
OCT									
19...	9.4	.4	6.5	161	0	132	6.3	2.4	.3
NOV									
19...	8.8	.3	6.3	152	0	125	9.9	1.5	.3
DEC									
20...	7.6	.3	7.5	190	0	156	9.5	1.6	.2
JAN									
11...	8.4	.3	7.0	173	0	142	9.5	1.4	.3
25...	8.0	.3	6.4	170	0	140	11	1.9	.3
FEB									
01...	10	.4	6.6	162	0	133	9.7	3.7	.3
MAR									
14...	7.9	.3	7.3	151	0	124	10	2.3	.2
APR									
05...	9.1	.4	8.0	170	0	140	12	3.5	.3
MAY									
17...	9.1	.3	7.1	170	0	140	9.1	1.7	.3
JUN									
07...	9.4	.4	7.3	170	0	140	13	2.7	.3
JUL									
19...	9.6	.4	7.4	150	0	120	10	3.0	.3
AUG									
18...	5.0	.3	9.5	110	0	90	6.3	2.4	.3
SEP									
20...	7.3	.3	7.3	170	0	140	7.7	2.4	.3

06792000 CEDAR RIVER NEAR FULLERTON, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)
OCT									
19...	37	185	.25	79.9	.20	.13	30	80	20
NOV									
10...	38	182	.25	76.2	.18	.12	20	30	10
DEC									
20...	41	212	.29	119	.43	.15	30	20	20
JAN									
11...	51	213	.29	79.4	.60	.21	20	90	30
25...	46	207	.28	77.7	.67	.21	30	20	40
FEB									
01...	45	202	.27	101	.53	.19	20	60	30
MAR									
14...	31	176	.24	138	.23	.23	30	50	0
APR									
05...	35	190	.27	136	.30	.21	50	50	20
MAY									
17...	34	193	.26	96.9	.04	.29	50	50	20
JUN									
07...	37	207	.28	129	.69	.29	70	80	10
JUL									
19...	36	179	.24	56.5	.01	.25	60	70	4
AUG									
10...	18	128	.17	134	1.1	.23	100	20	8
SEP									
20...	38	193	.26	91.7	.00	.23	30	20	0

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	260	264	273	363	307	286	280	318	296	308	267	248
2	264	266	297	183	288	270	282	302	308	306	283	239
3	256	268	282	184	278	282	274	304	285	298	286	248
4	262	280	292	168	268	283	262	302	318	283	282	240
5	265	220	287	290	253	289	202	305	302	286	221	270
6	265	256	258	285	253	287	278	305	305	280	269	254
7	264	243	285	288	285	278	287	307	317	293	266	264
8	264	267	278	285	247	288	192	307	325	283	267	282
9	271	268	293	282	285	278	278	300	312	280	238	292
10	264	248	288	308	230	286	288	297	318	278	202	325
11	263	277	297	312	233	279	285	302	314	268	240	287
12	264	282	278	319	233	276	273	304	312	240	247	285
13	267	298	300	287	239	282	283	304	293	237	268	287
14	267	288	276	288	238	274	217	300	295	235	260	285
15	277	281	260	283	238	276	287	306	298	255	272	278
16	268	273	243	290	252	287	256	296	295	248	248	289
17	268	257	233	290	248	283	263	290	268	258	230	300
18	265	269	233	301	248	292	275	285	263	273	257	275
19	267	273	257	285	244	277	287	258	268	268	264	294
20	267	272	315	289	244	283	277	248	262	278	269	287
21	265	267	288	273	240	285	297	238	256	268	272	283
22	265	274	280	268	240	286	287	266	268	256	275	286
23	265	280	282	268	233	295	268	258	268	255	275	275
24	265	270	339	262	254	295	262	248	268	250	275	272
25	271	265	263	259	287	301	270	238	268	258	240	278
26	263	318	272	258	287	297	280	237	333	273	250	248
27	270	318	287	252	253	296	275	225	273	272	270	235
28	270	379	265	259	262	282	270	235	287	268	247	283
29	268	388	258	285	---	296	292	236	312	265	250	296
30	269	387	289	310	---	308	288	222	317	278	250	293
31	269	---	335	322	---	295	---	235	---	267	210	---

06792000 CEDAR RIVER NEAR FULLERTON, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.0	12.5	1.0	0.0	2.0	2.5	9.5	24.0	28.0	27.5	29.0	23.0
2	14.0	12.0	0.0	0.0	1.0	1.5	10.5	21.0	28.0	27.0	32.0	20.5
3	20.0	7.0	1.0	0.0	2.5	1.0	6.0	24.5	27.0	31.0	30.5	25.0
4	14.0	5.0	0.0	0.0	0.0	1.0	6.0	19.0	32.0	32.5	31.0	25.5
5	18.0	10.0	1.0	0.0	1.0	4.0	15.0	22.0	33.0	31.0	25.0	25.0
6	11.0	5.0	1.0	1.5	0.0	7.0	16.5	25.5	27.5	31.5	26.0	29.0
7	12.0	7.5	0.0	1.0	2.0	12.0	19.0	21.5	30.5	30.5	27.5	27.0
8	13.5	8.5	1.0	1.0	4.5	14.0	21.5	26.0	27.0	31.5	28.0	28.0
9	13.0	9.5	0.0	0.0	4.0	13.0	21.5	21.5	26.0	30.5	25.0	23.0
10	18.5	3.0	0.0	0.0	2.0	11.0	23.0	23.5	30.5	29.0	24.0	23.0
11	18.0	0.0	1.0	0.0	6.0	10.5	22.0	21.0	27.0	28.5	25.0	20.0
12	17.0	0.0	0.0	0.0	1.0	6.5	18.0	26.0	30.5	29.5	20.0	19.5
13	17.5	0.0	0.0	0.5	0.0	10.5	19.0	23.0	27.0	22.0	22.0	22.5
14	12.0	0.0	1.0	1.0	0.0	12.5	19.0	26.0	28.5	26.0	21.0	24.5
15	11.0	0.0	0.0	0.0	1.0	13.0	18.0	26.0	31.0	32.0	23.0	24.5
16	9.0	4.0	3.0	0.0	1.5	11.5	19.0	25.5	27.0	31.0	22.0	24.0
17	7.0	5.0	2.0	0.0	2.0	12.0	19.5	28.0	27.0	30.0	25.0	25.5
18	9.0	8.0	4.0	0.0	0.5	13.0	19.0	25.0	26.0	29.0	23.0	25.0
19	10.0	5.0	1.0	1.0	1.5	5.0	18.5	22.0	29.0	32.0	26.5	21.0
20	21.0	3.0	0.0	3.5	2.5	5.0	11.0	18.0	29.0	31.0	28.0	23.0
21	9.0	0.0	0.0	3.0	3.5	7.0	15.0	18.5	25.0	32.0	27.5	22.0
22	6.0	0.0	0.5	1.0	3.0	11.0	20.0	21.0	29.0	30.0	25.0	21.0
23	7.0	0.0	0.0	3.5	0.5	12.0	21.0	26.0	31.0	33.0	26.0	23.0
24	5.5	5.0	0.0	0.0	1.0	14.5	19.5	27.0	31.0	34.0	28.0	20.5
25	6.0	0.0	1.0	1.0	1.0	12.5	20.0	25.0	32.0	23.5	23.0	22.0
26	4.0	1.0	0.0	0.0	2.0	12.5	22.0	23.0	31.5	27.5	29.0	22.5
27	5.0	0.0	0.0	0.0	1.5	17.0	23.5	22.0	32.0	29.5	25.0	22.5
28	6.0	2.0	1.0	0.0	2.5	12.0	24.5	23.5	26.0	30.5	25.5	21.0
29	6.5	0.0	1.0	0.0	---	12.0	21.5	28.0	30.5	30.0	26.0	20.0
30	9.5	0.0	0.0	0.0	---	5.5	21.5	23.0	32.0	30.0	27.0	19.0
31	10.0	---	1.0	0.0	---	10.0	---	24.0	---	28.0	23.0	---

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°23'31", long 97°49'20", in NE1/4NE1/4 sec.6, T.16 N., R.4 W., Nance County, Hydrologic Unit 10210009, at diversion structure, 2 miles upstream from gaging station and 5.5 miles southeast of Genoa.

PERIOD OF RECORD.--Water year 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1972 to current year.
WATER TEMPERATURES: October 1972 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 679 micromhos June 1, 1977; minimum daily, 195 micromhos Feb. 20, 1977.
WATER TEMPERATURES: Maximum, 35.5°C July 21, 1976; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 679 micromhos June 1; minimum daily, 195 micromhos Feb. 20.
WATER TEMPERATURES: Maximum, 32.0°C July 7, 17, 24; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	FECAL COLIFORM (COL. PER 100 ML) (31616)	FECAL COLIFORM, .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	HARDNESS (CA,MG) (MG/L) (00900)
OCT 19...	1400	1500	260	8.2	5.5	20	40	--	100	--	110
NOV 10...	1100	2110	258	8.2	3.0	20	--	14	160	--	120
DEC 20...	1700	170	250	8.0	.5	--	--	17	160	--	--
JAN 11...	1600	69	310	8.4	.5	7	--	63	170	--	130
FEB 01...	1645	1780	240	8.2	.0	9	--	3	20	--	120
MAR 14...	1600	3110	287	7.6	11.0	60	--	700	3200	--	110
APR 05...	1800	2960	300	7.6	7.5	60	--	630	19000	--	120
MAY 17...	1630	2800	275	7.8	25.5	100	--	933	900	--	110
JUN 07...	1315	2080	300	8.1	23.0	35	--	1070	310	--	120
JUL 19...	1900	707	257	8.4	29.0	25	--	200	--	210	120
AUG 17...	1300	3060	240	7.8	22.0	300	--	21000	--	40000	85
SEP 20...	1615	1660	318	8.3	20.5	40	--	400	--	400	120

DATE	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)
OCT 19...	0	35	5.9	9.2	.4	6.5	152	0	125	6.3	1.7
NOV 10...	0	32	6.9	8.8	.4	6.2	134	0	110	9.3	1.6
DEC 20...	--	--	--	--	--	--	--	--	--	--	--
JAN 11...	0	41	6.6	10	.4	7.6	169	0	139	11	2.3
FEB 01...	0	38	6.0	8.8	.4	6.8	161	0	132	10	2.1
MAR 14...	0	34	5.3	10	.4	7.6	135	0	111	16	4.1
APR 05...	0	38	6.3	11	.4	8.8	150	0	130	14	3.5
MAY 17...	0	36	5.0	12	.5	8.9	160	0	130	11	4.0
JUN 07...	0	39	6.2	11	.4	8.4	160	0	130	13	2.6
JUL 19...	0	39	5.9	10	.4	8.9	160	0	130	11	4.8
AUG 17...	0	28	3.6	7.7	.4	9.6	130	0	110	7.3	3.3
SEP 20...	0	38	6.1	8.5	.3	7.8	170	0	140	11	4.7

06793499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L) (00625)	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)
OCT										
19...	.3	40	193	188	.26	702	.05	.53	.58	.22
NOV										
10...	.3	40	193	170	.26	1100	.04	.87	1.5	.26
DEC										
20...	--	--	--	--	--	--	--	--	--	--
JAN										
11...	.4	44	230	226	.31	67.4	.08	.28	1.2	.23
FEB										
01...	.4	50	213	207	.29	1420	.72	1.4	2.1	.21
MAR										
14...	.3	36	205	190	.28	1720	.70	1.0	1.7	.46
APR										
05...	.3	42	217	202	.30	1730	.60	--	--	.43
MAY										
17...	.4	36	206	193	.28	1560	.05	1.7	1.7	.42
JUN										
07...	.4	40	216	208	.29	1210	.01	.80	.81	.37
JUL										
19...	.4	47	216	206	.29	412	.02	.96	.98	.20
AUG										
17...	.3	31	169	195	.28	1250	.01	3.2	3.4	.09
SEP										
20...	.3	40	202	208	.27	909	.02	--	--	.28

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	SUS-PENDED ARSENIC (AS) (UG/L) (01001)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	TOTAL CAD-MIUM (CD) (UG/L) (01027)	SUS-PENDED CAD-MIUM (CD) (UG/L) (01026)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)	TOTAL CHRO-MIUM (CR) (UG/L) (01034)	SUS-PENDED CHRO-MIUM (CR) (UG/L) (01031)	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	SUS-PENDED COBALT (CO) (UG/L) (01036)
DEC												
20...	1700	5	0	5	--	--	3	--	--	0	--	--
MAR												
14...	1600	7	0	7	<10	<9	1	0	0	0	<50	<50
JUN												
07...	1515	15	0	15	<10	<6	4	10	10	0	<50	<50
SEP												
20...	1615	7	0	7	30	18	12	10	10	0	50	50

DATE	DIS-SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	SUS-PENDED COPPER (CU) (UG/L) (01041)	DIS-SOLVED COPPER (CU) (UG/L) (01040)	TOTAL IRON (FE) (UG/L) (01045)	DIS-SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	SUS-PENDED LEAD (PB) (UG/L) (01050)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	TOTAL MAN-GANESE (MN) (UG/L) (01055)	SUS-PENDED MAN-GANESE (MN) (UG/L) (01054)
DEC											
20...	1	--	--	5	--	60	--	--	9	--	--
MAR											
14...	0	20	11	9	3800	100	<100	<96	4	160	150
JUN											
07...	0	<10	<3	7	2000	30	<100	<87	13	160	150
SEP											
20...	0	70	64	6	5600	20	100	20	80	130	130

DATE	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUS-PENDED MERCURY (HG) (UG/L) (71895)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELE-NIUM (SE) (UG/L) (01147)	SUS-PENDED SELE-NIUM (SE) (UG/L) (01146)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	TOTAL ZINC (ZN) (UG/L) (01092)	SUS-PENDED ZINC (ZN) (UG/L) (01091)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
DEC											
20...	10	--	--	.2	1	0	1	--	--	30	2.0
MAR											
14...	10	.0	.0	.0	1	0	1	30	20	10	11
JUN											
07...	10	.0	.0	.0	3	3	0	20	10	10	11
SEP											
20...	0	.0	.0	.0	0	0	0	180	170	10	7.0

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE TIME	OCT 19,76 1400	NOV 10,76 1100	JAN 11,77 1600	FEB 1,77 1605	MAY 17,77 1630
TOTAL CELLS/ML	5700	8300	1100	2000	180000
DIVERSITY: DIVISION	0.8	0.6	0.5	1.2	1.2
.CLASS	0.8	0.6	0.5	1.2	1.2
..ORDER	1.4	1.2	1.1	1.6	1.5
...FAMILY	2.5	2.4	2.3	2.4	2.7
....GENUS	3.1	2.5	2.5	2.6	3.5

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	26	1	--	-
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	--	-	--	-	--	-	--	-
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	--	-	--	-	--	-
....MICRACTINIUM	--	-	--	-	--	-	--	-	38000#	21
...OOCYSTACEAE										
....ANKISTRODESMUS	230	4	--	-	--	-	--	-	17000	9
....CHODATELLA	--	-	--	-	--	-	--	-	2900	2
....CLOSTERIOPSIS	--	-	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	9400	5
....FRANCEIA	--	-	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-	21000	11
....OOCYSTIS	--	-	--	-	16	1	--	-	*	0
....SELENASTRUM	--	-	--	-	--	-	--	-	2900	2
....TETRAEDRON	--	-	--	-	--	-	--	-	1500	1
....TREUBARIA	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	180	3	--	-	--	-	--	-	4400	2
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	780	14	1200	14	100	9	--	-	22000	12
....TETRASTRUM	--	-	--	-	--	-	--	-	5000	3
..TETRASPORALES										
...PALMELLACEAE										
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	66	1	--	-	--	-	26	1	2200	1
...PHACOTACEAE										
....PHACOTUS	--	-	79	1	--	-	--	-	--	-
....PTEROMONAS	--	-	--	-	--	-	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....COSMARIUM	66	1	--	-	--	-	26	1	--	-
....SPONDYLOSIUM	--	-	--	-	*	0	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 19,76	NOV 10,76	JAN 11,77	FEB 1,77	MAY 17,77
TIME	1400	1100	1600	1645	1630
TOTAL CELLS/ML	5700	8300	1100	2800	180000
DIVERSITY: DIVISION	0.8	0.6	0.5	1.2	1.2
.CLASS	0.8	0.6	0.5	1.2	1.2
..ORDER	1.4	1.2	1.1	1.6	1.5
...FAMILY	2.5	2.4	2.3	2.4	2.7
....GENUS	3.1	2.5	2.5	2.6	3.5

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	26	1	--	-
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	--	-	--	-	--	-	--	-
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	--	-	--	-	--	-
....MICRACTINIUM	--	-	--	-	--	-	--	-	38000#	21
...OOCYSTACEAE										
....ANKISTRODESMUS	230	4	--	-	--	-	--	-	17000	9
....CHODATELLA	--	-	--	-	--	-	--	-	2900	2
....CLOSTERIOPSIS	--	-	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	9400	5
....FRANCEIA	--	-	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	16	1	--	-	21000	11
....OOCYSTIS	--	-	--	-	--	-	--	-	*	0
....SELENASTRUM	--	-	--	-	--	-	--	-	2900	2
....TETRAEDRON	--	-	--	-	--	-	--	-	1500	1
....TREUBARIA	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	180	3	--	-	--	-	--	-	4400	2
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	780	14	1200	14	100	9	--	-	22000	12
....TETRASTRUM	--	-	--	-	--	-	--	-	5800	3
..TETRASPORALES										
...PALMELLACEAE										
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	46	1	--	-	--	-	26	1	2200	1
...PHACOTACEAE										
....PHACOTUS	--	-	79	1	--	-	--	-	--	-
....PTEROMONAS	--	-	--	-	--	-	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....COSMARIUM	46	1	--	-	--	-	26	1	--	-
....SPONDYLOSIUM	--	-	--	-	*	0	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMRER 1977

DATE TIME	OCT 19,76 1400		NOV 10,76 1100		JAN 11,77 1600		FEB 1,77 1645		MAY 17,77 1630	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PEP- CENT
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	740	13	1000	12	140	12	300	11	12000	7
....MELOSIRA	180	3	--	-	16	1	100	4	--	-
....STEPHANODISCUS	--	-	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	20	2	--	-	--	-
....COCCONEIS	46	1	710	8	16	1	52	2	*	0
....RHOICOSPHENIA	--	-	160	2	--	-	52	2	--	-
...CYMBELLACEAE										
....AMPHORA	46	1	--	-	*	0	--	-	--	-
....CYMBELLA	--	-	--	-	12	1	--	-	--	-
....EPITHEMIA	*	0	--	-	*	0	39	1	--	-
....RHOPALODIA	*	0	--	-	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	46	1	--	-	--	-	--	-	--	-
....OPEPHORA	--	-	--	-	--	-	--	-	*	0
...FRAGILARIACEAE										
....FRAGILARIA	1200#	22	3700#	44	600#	53	--	-	*	0
....HANNAEA	--	-	--	-	--	-	26	1	--	-
....SYNEDRA	920#	16	79	1	--	-	66	2	1500	1
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	79	1	60	5	310	11	--	-
...NAVICULACEAE										
....NAVICULA	600	10	630	8	60	5	240	9	*	0
....PINNULARIA	--	-	--	-	8	1	--	-	--	-
....STAURONEIS	--	-	--	-	--	-	52	2	--	-
...NITZSCHIACEAE										
....NITZSCHIA	600	10	550	7	64	6	66	2	8700	5
...SURIRELLACEAE										
....SURIRELLA	--	-	160	2	8	1	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROCCOCCALES										
...CHROCCOCCAEAE										
....AGMENELLUM	--	-	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	--	-	--	-	--	-	25000	13
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	--	-	--	-	7300	4
....OSCILLATORIA	--	-	--	-	--	-	1400#	50	--	-
...RIVULARIACEAE										
....RAPHIDIOPSIS	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....PHORMIMIDIUM	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	--	-
....PHACUS	--	-	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...PERIDINIACEAE										
....PERIDINIUM	--	-	--	-	*	0	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	JUN 7,77	JUL 19,77	AUG 17,77	SEP 20,77
TIME	1315	1500	1300	1615
TOTAL CELLS/ML	120000	210000	3400	160000
DIVERSITY: DIVISION	1.2	1.4	1.4	1.7
.CLASS	1.2	1.4	1.4	1.7
..ORDER	1.4	2.1	2.0	2.3
...FAMILY	2.1	3.1	2.9	2.9
....GENUS	3.0	3.3	3.3	3.5

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	--	-
...COELASTRACEAE								
....COELASTRUM	--	-	9500	4	--	-	--	-
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	9800	5	--	-	--	-
...MICRACTINIACEAE								
....GOLENKINIA	*	0	--	-	--	-	--	-
....MICRACTINIUM	--	-	--	-	--	-	4500	3
...OOCYSTACEAE								
....ANKISTRODESMUS	8900	7	10000	5	150	4	3000	2
....CHODATELLA	--	-	*	0	--	-	--	-
....CLOSTERIOPSIS	6000	5	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	3100	1	410	12	--	-
....FRANCEIA	710	1	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	41	1	12000	7
....OOCYSTIS	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	1300	1	--	-	--	-
....TREUBARIA	--	-	9600	5	27	1	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	19000#	15	--	-	110	3	--	-
....CRUCIGENIA	2800	2	--	-	--	-	--	-
....SCENEDESMUS	36000#	29	63000#	30	760#	23	28000#	17
....TETRASTRUM	2800	2	--	-	--	-	3000	2
..TETRASPORALES								
...PALMELLACEAE								
....SPHAEROCYSTIS	--	-	7400	3	440	13	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-
...PHACOTACEAE								
....PHACOTUS	--	-	--	-	--	-	--	-
....PTEROMONAS	--	-	--	-	--	-	*	0
..ZYGNEMATALES								
...DESMIDIACEAE								
....COSMARIUM	--	-	5200	2	--	-	--	-
....SPONDYLOSIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	JUN 7,77		JUL 19,77		AUG 17,77		SEP 20,77	
TIME	1315		1500		1300		1615	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	1800	1	7500	4	82	2	20000	12
....MELOSIRA	2800	2	--	-	--	-	6700	4
....STEPHANODISCUS	--	-	--	-	--	-	15000	9
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	1500	1
....COCCONEIS	--	-	--	-	110	3	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	--	-
...CYMBELLACEAE								
....AMPHORA	--	-	--	-	--	-	--	-
....CYMBELLA	--	-	--	-	--	-	--	-
....EPITHEMIA	--	-	--	-	--	-	--	-
....RHOPALODIA	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	--	-	120	4	--	-
....OPEPHORA	--	-	--	-	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	--	-	--	-	--	-	--	-
....HANNAEA	--	-	--	-	--	-	--	-
....SYNEDRA	3600	3	10000	5	150	4	3000	2
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....NAVICULA	--	-	3600	2	250	7	1500	1
....PINNULARIA	--	-	--	-	--	-	--	-
....STAURONEIS	--	-	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	1100	1	2000	1	180	5	21000	13
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	45000#	21	550#	16	5200	3
....ANACYSTIS	3200	3	--	-	--	-	30000#	18
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	4600	4	9000	4	--	-	1500	1
...OSCILLATORIACEAE								
....LYNGBYA	--	-	--	-	--	-	--	-
....OSCILLATORIA	--	-	--	-	--	-	3000	2
...RIVULARIACEAE								
....RAPHIDIOPSIS	29000#	24	--	-	--	-	--	-
...OSCILLATORIACEAE								
....PHORMIDIUM	--	-	14000	7	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	1500	1
....PHACUS	--	-	*	0	--	-	--	-
....TRACHELOMONAS	--	-	*	0	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...PERIDINIACEAE								
....PERIDINIUM	--	-	--	-	--	-	3000	2

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70958)
JUN			
07...	782	3.63	2.04
AUG			
17...	65220	.043	.046

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	351	261	368	293	277	258	278	405	479	345	277	268
2	264	252	374	319	270	247	257	318	305	322	288	269
3	263	252	397	332	265	243	297	298	305	338	293	218
4	259	252	389	330	263	250	294	302	303	343	293	227
5	263	251	328	323	253	253	286	308	308	347	267	263
6	262	250	327	318	245	255	283	308	308	350	286	305
7	261	251	335	312	243	250	284	305	308	368	277	303
8	261	252	328	328	235	247	277	303	315	334	285	288
9	261	252	305	308	233	247	280	318	320	313	265	298
10	265	257	304	312	228	243	283	288	317	306	207	298
11	257	256	306	319	219	240	283	268	312	287	258	300
12	260	258	297	312	217	228	287	268	288	283	297	280
13	260	272	283	308	216	270	275	277	332	270	283	245
14	259	270	272	298	218	268	268	286	302	257	271	278
15	265	269	262	297	208	284	300	285	298	267	272	299
16	265	260	254	297	208	277	278	288	290	283	231	298
17	265	251	244	294	209	270	284	288	290	287	248	305
18	265	245	235	290	200	262	287	283	285	298	247	290
19	265	247	238	290	196	239	285	298	285	315	268	318
20	266	252	243	280	195	241	268	287	287	324	268	313
21	268	251	256	275	197	258	290	257	270	333	230	305
22	310	257	265	271	198	259	282	268	272	295	268	303
23	264	253	280	265	203	257	272	280	282	238	267	303
24	264	253	285	258	211	277	272	278	300	248	266	307
25	264	252	287	255	211	288	284	268	285	245	260	296
26	254	252	283	252	210	288	285	267	285	265	260	288
27	254	278	268	250	213	273	292	268	285	287	247	290
28	252	319	265	255	226	258	294	278	298	280	235	282
29	252	345	264	255	---	260	300	282	308	288	238	280
30	252	378	272	260	---	295	303	262	312	280	245	268
31	251	---	282	271	---	282	---	258	---	277	255	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	11.0	0.0	0.0	0.0	1.0	10.0	24.0	20.0	27.0	27.0	23.0
2	21.5	10.0	0.0	0.0	0.0	0.5	11.0	20.5	25.0	22.0	29.5	21.0
3	19.5	7.0	0.5	0.0	0.0	2.0	6.5	21.5	26.0	25.5	29.0	20.5
4	17.5	5.0	0.5	0.0	0.0	0.5	6.5	23.5	28.5	30.5	26.5	26.0
5	16.0	6.0	0.0	0.0	0.0	0.5	8.5	18.0	30.0	30.5	25.5	27.0
6	11.5	6.5	0.0	0.5	0.0	5.5	14.5	23.5	26.0	31.0	23.5	28.5
7	12.0	6.0	0.0	0.5	0.0	8.0	16.5	21.0	26.0	32.0	24.0	26.5
8	14.5	6.5	0.0	0.0	0.0	10.5	18.5	24.0	20.5	29.5	28.5	26.5
9	16.0	8.5	0.5	0.0	0.0	13.5	20.0	23.0	25.0	27.0	23.5	23.0
10	13.5	6.0	0.5	0.0	0.0	9.5	20.5	21.0	28.5	29.0	23.0	23.5
11	17.5	0.5	0.5	0.0	0.0	10.0	20.0	20.0	24.5	28.5	22.0	19.5
12	18.5	0.0	0.5	0.0	0.0	7.0	17.0	23.5	23.0	29.0	26.5	19.5
13	17.5	0.0	0.5	0.0	0.0	8.0	17.0	23.0	23.5	30.0	28.0	21.0
14	18.5	0.0	0.5	0.0	0.0	11.5	18.5	19.5	26.0	31.0	23.0	22.0
15	12.5	0.5	0.5	0.0	0.0	10.5	17.0	23.5	28.5	28.0	28.0	22.0
16	10.5	0.5	0.5	0.0	0.0	10.5	18.5	25.5	24.0	31.5	21.5	21.0
17	7.5	4.0	0.5	0.0	0.0	8.5	19.5	22.0	23.5	32.0	26.0	24.0
18	6.0	1.5	0.5	0.0	0.0	11.5	19.5	25.5	26.5	31.5	24.0	23.0
19	5.5	6.0	0.0	0.0	0.0	4.5	18.5	25.0	29.0	31.0	27.0	22.0
20	7.5	4.0	0.0	0.0	0.0	4.5	12.0	23.0	28.5	31.0	27.0	21.5
21	8.5	2.0	0.0	0.0	0.0	7.0	14.0	20.5	24.5	25.0	24.5	20.5
22	9.0	0.0	0.0	0.0	0.0	9.0	17.0	17.0	26.5	25.0	21.0	23.0
23	6.0	0.5	0.5	0.0	0.0	6.0	20.0	23.5	24.5	30.5	24.0	21.0
24	5.5	2.5	0.5	0.0	0.5	12.0	18.5	26.0	29.0	32.0	24.5	18.5
25	6.5	4.5	0.5	0.0	0.5	10.5	18.0	24.0	29.0	26.0	24.5	20.5
26	5.0	0.5	0.5	0.0	0.5	13.0	19.5	22.0	30.5	26.5	27.0	21.5
27	4.0	0.0	0.5	0.0	1.5	10.5	21.0	20.0	26.5	29.0	25.5	21.0
28	6.0	0.0	0.0	0.0	0.5	13.0	21.5	23.5	26.5	30.5	26.0	18.5
29	6.0	0.0	0.0	0.0	---	10.5	20.5	26.0	21.5	31.5	25.0	19.5
30	10.0	0.0	0.0	0.0	---	6.0	16.5	22.0	20.0	29.5	25.0	18.0
31	10.0	---	0.0	0.0	---	8.0	---	19.0	---	28.5	23.0	---

06792500 LOUP RIVER POWER CANAL NEAR GENOA, NE

LOCATION.--Lat 41°25'03", long 97°47'37", in NE1/4NE1/4 sec.32, T.17 N., R.4 W., Nance County, Hydrologic Unit 10210009, at skimming weir on downstream end of settling basin on left bank, 2 mi (3 km) downstream from point of diversion and 3.5 mi (5.6 km) southeast of Genoa.

PERIOD OF RECORD.--December 1936 to current year.

GAGE.--Water-stage recorder and concrete weir. Datum of gage is 1,566.26 ft (477.396 m) above mean sea level. Prior to Oct. 1, 1956, at datum 3.0 ft (0.91 m) higher.

REMARKS.--Records excellent. Canal diverts from Loup River in sec.6, T.16 N., R.4 W.; water is used in powerplants near Monroe and Columbus and is returned to Platte River 1.5 mi (2.4 km) downstream from Loup River. Diversion began Dec. 2, 1936.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,410 ft³/s (96.6 m³/s) Apr. 27, 1944; no flow Aug. 16, 24-27, 30, 31, 1966, flood damage to canal being repaired.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3,190 ft³/s (90.3 m³/s) Apr. 19, May 22; minimum daily, 17 ft³/s (0.48 m³/s) Nov. 29,30, Jan. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1300	2000	18	34	1550	1760	2820	2260	3170	895	868	3070
2	1290	1990	18	24	1480	926	3020	2200	3090	808	770	2990
3	1320	2040	188	20	1620	1620	3040	2690	3010	759	776	3040
4	1330	2080	130	18	1750	2300	3180	2490	2400	662	783	2960
5	1360	2110	46	17	1880	1370	3100	2210	2130	593	1160	2570
6	1400	1980	36	522	1880	2090	2940	2200	2090	510	1840	1930
7	1380	1960	35	807	1980	2220	2530	2120	2060	450	1600	1750
8	1440	1980	29	236	2080	2160	2290	2110	1940	577	1390	1650
9	1470	1930	421	66	2120	2180	2090	2720	1820	1410	1860	1520
10	1540	1950	421	53	2200	2520	2080	3150	1790	1110	1950	1530
11	1500	2070	461	57	2240	2580	2000	3160	1650	1980	1450	1460
12	1440	163	960	416	2210	2900	1960	2820	1700	2950	1340	1760
13	1410	57	1110	967	2130	2920	2160	2390	2000	2860	1280	2890
14	1410	48	1600	1240	2160	2910	2830	2240	2380	2110	1250	2100
15	1380	52	894	248	2230	2680	3120	2070	2510	1670	1480	1780
16	1400	759	837	128	2200	2860	3040	2080	2170	1310	2690	1670
17	1410	1240	890	730	2180	2810	3060	2930	2120	1060	3080	1680
18	1480	2270	971	165	2180	2900	3070	2150	2460	932	2550	1690
19	1500	2170	595	632	2180	2950	3190	2230	2270	777	1740	1700
20	1520	2100	150	1330	2180	2960	3060	3110	2300	655	1540	1590
21	1540	2150	114	1470	2180	2900	3080	3180	2410	565	1550	1580
22	1620	107	199	1500	2240	2930	3130	3190	2230	741	1550	1580
23	1630	203	628	1610	2090	2840	3140	3170	2020	1680	1780	1560
24	1800	899	637	1670	2270	2770	3100	3170	1890	1210	2100	1600
25	2260	2030	532	1770	2330	2570	3170	3140	2020	2460	2280	1680
26	2110	1610	702	1930	2210	2690	3110	3180	1830	1420	2960	1980
27	2200	52	1040	2010	1840	2790	2810	3090	1660	1250	3050	1850
28	2030	22	576	1560	2180	2770	2520	3140	1430	1070	2920	1860
29	2000	17	447	1420	---	2870	2310	3090	1210	1020	2340	1980
30	2000	17	104	1670	---	2940	2380	3140	1020	990	2070	2110
31	2100	---	73	1570	---	3030	---	3100	---	1010	2500	---
TOTAL	49610	38056	14862	25890	57730	78716	83330	83880	62780	37502	56093	59070
MEAN	1600	1269	479	835	2062	2539	2778	2706	2093	1210	1809	1969
MAX	2260	2270	1600	2010	2330	3030	3190	3190	3170	2950	3080	3070
MIN	1290	17	18	17	1480	926	1960	2070	1020	450	770	1460
AC-FT	98400	75480	29480	51350	114500	156100	165300	166400	124500	74390	111300	117200

CAL YR 1976 TOTAL 519931 MEAN 1421 MAX 3100 MIN 17 AC-FT 1031000
WTR YR 1977 TOTAL 647519 MEAN 1774 MAX 3190 MIN 17 AC-FT 1284000

06793000 LOUP RIVER NEAR GENOA, NE

LOCATION.--Lat 41°25'05", long 97°43'28", in SE1/4NW1/4 sec.25, T.17 N., R.4 W., Nance County, Hydrologic Unit 10210009, on right bank 300 ft (91 m) upstream from bridge on State Highway 39, 2 mi (3 km) south of Genoa, 3 mi (5 km) upstream from Beaver Creek, and 6 mi (10 km) downstream from diversion dam of Loup River Public Power District.

DRAINAGE AREA.--14,400 mi² (37,300 km²), approximately, of which about 5,650 mi² (14,600 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--August 1928 to June 1932, October 1943 to current year (October 1953 to April 1955, monthly discharge only).

REVISED RECORDS.--WDR NE-76: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,540.13 ft (469.432 m) above mean sea level, unadjusted. Aug. 17, 1928, to June 30, 1932, nonrecording gage at datum 1.49 ft (0.454 m) higher. Oct. 1, 1943 to Sept. 16, 1976 (Apr. 26 to Dec. 22, 1949, wire-weight gage only) at site 300 ft (90 m) downstream at present datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Records do not include flow of Loup River power canal (station 06792500) which diverts at point 6 mi (10 km) upstream and returns to Platte River below mouth of Loup River; diversion began Dec. 2, 1936. Periodic temperature, conductance, and sediment measurements are published in tables for water quality at miscellaneous sites.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 129,000 ft³/s (3,650 m³/s) Aug. 13, 1966, gage height, 13.93 ft (4.246 m), from rating curve extended above 42,000 ft³/s (1,190 m³/s) on basis of indirect measurement of peak flow; no flow at times during 1956, 1959, 1961, 1963, 1970, 1973, 1974, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,440 ft³/s (239 m³/s) May 22, gage height, 7.60 ft (2.316 m); maximum gage height, 10.20 ft (3.109 m) Feb. 23, backwater from ice; minimum daily discharge, 1.3 ft³/s (0.037 m³/s) Oct. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	8.5	2100	2050	70	400	159	14	3220	76	2.1	1910
2	5.6	4.0	2000	2000	62	1200	1450	18	712	65	1.8	348
3	5.5	2.9	1800	2000	56	2000	2800	19	72	22	1.7	5350
4	5.1	4.0	1850	1900	60	150	1390	26	46	15	1.7	1760
5	4.2	34	2050	1800	80	1600	977	12	37	10	2.6	71
6	4.1	42	2100	1500	90	200	196	11	34	9.7	5.1	70
7	4.3	22	2100	1200	110	150	66	12	31	8.2	4.8	99
8	4.5	41	2050	1400	150	70	63	14	30	11	4.1	94
9	3.6	30	1700	1700	170	50	47	1100	29	8.1	7.4	97
10	3.2	28	1600	1600	200	100	29	1330	30	8.3	5.9	61
11	3.1	4.6	1500	1500	250	250	28	301	31	18	4.7	82
12	2.3	1900	1200	1150	300	1200	34	79	39	75	3.3	430
13	2.3	2000	1000	600	350	2800	48	46	41	23	2.5	2160
14	2.5	2000	500	300	380	1190	303	40	36	11	5.9	49
15	1.3	2000	1200	1300	350	89	5790	36	34	10	5.2	35
16	1.4	1200	1250	1400	370	310	2250	36	31	9.3	1600	33
17	1.7	1000	1200	800	390	89	1200	241	32	8.9	83	34
18	3.1	56	1100	1400	430	200	728	44	34	7.5	19	30
19	3.6	39	1500	900	450	789	651	39	34	4.6	11	30
20	3.5	24	1900	200	500	1080	1440	388	31	3.8	9.9	28
21	3.5	28	2000	100	600	589	5910	1890	57	5.2	9.7	28
22	3.4	2000	1900	90	700	185	3240	6590	84	4.3	12	27
23	4.0	1900	1500	80	1300	204	1710	3680	60	7.9	13	27
24	3.4	1300	1450	100	1200	179	1100	1260	84	5.3	12	24
25	11	61	1500	60	1100	68	664	433	96	56	16	24
26	5.4	704	1300	45	900	34	403	310	85	8.8	2200	30
27	3.3	2700	1000	50	600	76	86	1960	78	4.9	1500	25
28	2.9	500	1500	500	500	57	52	1070	82	3.8	62	24
29	2.8	350	1600	600	---	1940	28	623	74	3.5	83	25
30	2.8	1500	1900	300	---	2430	17	542	92	3.1	93	28
31	2.4	---	2000	100	---	1110	---	4600	---	2.2	146	---
TOTAL	116.5	21483.0	49350	28725	11718	20789	32931	26764	5376	509.4	5928.4	13041
MEAN	3.76	716	1592	927	419	671	1098	863	179	16.4	191	435
MAX	11	2700	2100	2050	1300	2800	5910	6590	3220	76	2200	5350
MIN	1.3	2.9	500	45	56	34	17	11	29	2.2	1.7	24
AC-FT	231	42610	97890	56980	23240	41230	65320	53090	10660	1010	11760	25870

CAL YR 1976	TOTAL	156771.19	MEAN	428	MAX	4200	MIN	.47	AC-FT	311000
WTR YR 1977	TOTAL	216731.30	MEAN	594	MAX	6590	MIN	1.3	AC-FT	429900

06793600 BEAVER CREEK NEAR ALBION, NE

LOCATION.--Lat 41°41'00", long 97°58'25", in NE1/4NW1/4SE1/4 sec.26, T.20 N., R.6 W., Boone County, Hydrologic Unit 10210009, at bridge on county road 0.8 miles east and 0.6 miles southeast of junction of Highways 14, 39, and 91 at east edge of Albion.

PERIOD OF RECORD.--Water year 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)
OCT										
18...	1320	41	215	7.6	8.5	20	11.6	8.6	1200	2100
NOV										
08...	1220	46	225	7.6	6.5	20	12.0	4.2	500	540
DEC										
22...	1110	37	260	7.1	.5	20	10.8	5.3	210	460
JAN										
19...	1155	34	252	6.8	.0	15	8.5	7.3	220	860
FEB										
03...	1025	44	225	7.6	.5	9	7.8	6.8	2600	1200
MAR										
15...	1110	85	254	7.5	9.0	60	11.4	4.0	1700	800
APR										
04...	1210	95	240	7.6	6.0	85	12.3	2.2	1300	300
MAY										
16...	1130	46	247	7.4	22.0	30	9.4	2.3	3300	800
JUN										
06...	1250	52	275	7.5	24.5	40	8.8	9.4	5900	1140
JUL										
18...	1110	23	261	7.8	28.0	45	8.5	1.8	6500	2800
AUG										
29...	1150	45	247	7.4	23.0	35	9.2	2.8	B12200	--
SEP										
19...	1145	41	280	7.3	18.5	30	9.5	2.7	>6000	--

DATE	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)
OCT										
18...	--	--	--	--	--	--	--	--	--	--
NOV										
08...	--	2.0	177	.24	.02	.45	.47	.83	.36	--
DEC										
22...	--	1.8	--	.26	.27	.33	.60	.98	.28	--
JAN										
19...	--	1.6	182	.25	.24	.28	.52	1.2	.40	.12
FEB										
03...	--	2.0	159	.22	.37	.15	.52	.99	.38	--
MAR										
15...	--	5.3	--	.24	.22	.98	1.2	1.7	.60	--
APR										
04...	--	3.2	201	.27	.11	.15	.26	.52	.44	.35
MAY										
16...	--	1.9	176	.24	.00	.74	.74	.99	.53	--
JUN										
06...	--	2.7	--	.25	1.1	1.1	2.2	2.4	1.6	--
JUL										
18...	--	2.9	182	.25	.13	.65	.78	1.0	.57	1.4
AUG										
29...	2000	--	--	--	--	--	--	--	--	--
SEP										
19...	16700	1.9	--	.24	.14	.36	.50	.82	.53	.43

06793600 BEAVER CREEK NEAR ALBION, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)
DEC 22...	1110	10	120	0	37	6.1	8.0	.3	--	154
MAR 15...	1110	70	110	0	33	5.8	10	.4	11	136
JUN 06...	1250	45	120	0	39	6.0	8.7	.3	7.3	160
SEP 19...	1145	30	110	0	34	5.5	6.7	.3	7.0	150

DATE	CAR- BONATE (CO3) (MG/L) (00445)	ALKA- LINITY AS CACO3 (MG/L) (00410)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)
DEC 22...	0	126	11	.3	49	189	--	30	--	--
MAR 15...	0	112	14	.4	33	180	10	80	2	0
JUN 06...	0	130	9.1	.3	34	186	--	40	--	--
SEP 19...	0	120	5.9	.3	38	173	10	30	2	0

DATE	DIS- SOLVED COPPER (CU) (UG/L) (01040)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUS- PENDED MERCURY (HG) (UG/L) (71895)	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
DEC 22...	--	40	--	30	--	--	--	--	--	--
MAR 15...	9	160	11	10	.0	.0	.0	0	0	20
JUN 06...	--	80	--	10	--	--	--	--	--	--
SEP 19...	1	40	13	0	.0	.0	.0	0	0	20

06794000 BEAVER CREEK AT GENOA, NE

LOCATION.--Lat 41°26'32", long 97°44'11", in NE1/4SE1/4 sec.14, T.17 N., R.4 W., Nance County, Hydrologic Unit 10210009, on left bank in city park at southwest corner of Genoa, 0.2 mi (0.3 km) downstream from Union Pacific Railroad bridge, 0.2 mi (0.3 km) upstream from bridge on State Highway 39, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--647 mi² (1,676 km²), of which about 410 mi² (1,062 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 1310: 1942(M). WDR NE-73: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,542.13 ft (470.041 m) above mean sea level, unadjusted. October 1940 to Nov. 5, 1942, nonrecording gage and Nov. 6, 1942, to Nov. 1, 1955, water-stage recorder, at site 0.4 mi (0.6 km) upstream at datum 4.62 ft (1.408 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected slightly by ground-water and surface-water withdrawals for irrigation. At times diurnal fluctuation at low flow caused by powerplants above station.

AVERAGE DISCHARGE.--37 years, 123 ft³/s (3.483 m³/s), 89,110 acre-ft/yr (0.110 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,200 ft³/s (600 m³/s) July 19, 1950, gage height, 18.70 ft (5.700 m), site and datum then in use, from rating curve extended above 8,500 ft³/s (241 m³/s); minimum daily, 0.41 ft³/s (0.012 m³/s) July 25, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 972 ft³/s (27.5 m³/s) May 22, gage height, 7.32 ft (2.231 m), no peak above base of 1,000 ft³/s (28.3 m³/s); minimum daily, 3.2 ft³/s (0.091 m³/s) Aug. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	51	45	43	43	68	139	90	120	50	11	175
2	44	51	43	46	47	70	145	88	115	47	7.4	141
3	44	50	45	45	52	74	136	87	133	43	7.1	115
4	43	49	44	50	64	70	140	88	116	33	6.4	92
5	45	49	43	54	70	66	132	95	91	28	3.2	79
6	43	49	43	60	64	68	133	88	83	21	37	71
7	42	50	40	66	68	81	127	84	80	21	24	65
8	43	49	38	68	76	87	118	81	78	21	23	60
9	46	50	39	64	86	90	107	82	78	24	152	53
10	46	50	40	64	96	86	99	78	76	18	676	52
11	45	49	41	66	104	87	91	76	73	48	204	51
12	46	31	42	70	110	95	88	76	75	69	147	56
13	46	30	40	68	110	100	86	73	89	69	95	55
14	44	44	42	72	124	122	101	73	101	34	82	53
15	43	50	40	76	116	108	138	71	104	27	69	56
16	43	48	45	72	112	108	196	71	109	22	91	49
17	44	66	50	78	125	97	229	72	119	20	160	127
18	46	58	48	70	120	93	220	71	183	18	129	107
19	47	62	45	78	125	93	194	70	100	16	91	68
20	48	52	40	80	122	96	186	309	160	6.8	78	52
21	51	51	38	82	120	93	218	540	120	7.4	80	51
22	50	39	40	86	116	100	323	803	84	137	80	52
23	50	45	39	90	116	99	363	320	74	92	85	53
24	50	56	42	86	110	95	269	190	70	50	93	44
25	51	51	45	80	90	93	195	147	66	285	104	48
26	50	51	44	80	66	92	172	131	64	57	121	46
27	50	46	45	76	70	93	129	166	62	35	124	47
28	50	44	44	60	70	101	111	189	60	27	125	46
29	50	42	41	35	---	113	100	148	58	24	135	47
30	52	48	39	40	---	127	94	172	56	21	92	52
31	51	---	38	45	---	173	---	225	---	18	87	---
TOTAL	1447	1461	1308	2050	2590	2946	4779	4850	2797	1389.2	3229.1	2063
MEAN	46.7	48.7	42.2	66.1	92.5	95.0	159	156	93.2	44.8	104	68.8
MAX	52	66	50	90	125	173	363	803	183	285	676	175
MIN	42	30	38	35	43	66	86	70	56	6.8	3.2	44
AC-FT	2870	2900	2590	4070	5140	5840	9480	9620	5550	2760	6400	4090

CAL YR 1976 TOTAL 26601.39 MEAN 72.7 MAX 827 MIN .99 AC-FT 52760
WTR YR 1977 TOTAL 30909.30 MEAN 84.7 MAX 803 MIN 3.2 AC-FT 61300

06794500 LOUP RIVER AT COLUMBUS, NE

LOCATION.--Lat 41°24'59", long 97°21'22", in NW1/4SE1/4 sec.30, T.17 N., R.1 E., Platte County, Hydrologic Unit 10210009, on left bank 0.6 mi (1.0 km) downstream from bridge on U.S. Highway 30 at Columbus, 2.3 mi (3.7 km) upstream from mouth, and 14 mi (23 km) downstream from Looking-glass Creek. Prior to Aug. 7, 1976 at site 0.4 miles upstream.

DRAINAGE AREA.--15,200 mi² (39,400 km²), approximately, of which about 6,230 mi² (16,100 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1894 to September 1915 (published as "near Columbus" 1900-1901), March to September 1931, October 1933 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 956: 1937-41. WSP 1006: Drainage area. WSP 1390: 1895, 1897, 1900-1901, 1915, 1941(M).

GAGE.--Water-stage recorder. Datum of gage is 1,428.29 ft (435.343 m) above mean sea level, unadjusted. See WSP 2110 for history of changes prior to June 15, 1967. June 15, 1967 to Aug. 6, 1976 at site 0.4 mi (0.6 km) upstream, at same datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Records do not include flow of Loup River power canal which diverts at point 25 mi (40 km) upstream and returns to Platte River below mouth of Loup River; diversion began Dec. 2, 1936 (station 06792500).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 119,000 ft³/s (3,370 m³/s) Aug. 14, 1966, gage height, 14.42 ft (4.395 m), present site and datum, from rating curve extended above 52,100 ft³/s (1,480 m³/s) by logarithmic plotting and volumetric study; minimum daily, 1.8 ft³/s (0.051 m³/s) Aug. 30, 31, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,400 ft³/s (181 m³/s) May 22, gage height, 4.65 ft (1.417 m); maximum gage height, 6.36 ft (1.939 m) Feb. 24, backwater from ice; minimum daily discharge, 20 ft³/s (0.57 m³/s) Aug. 4,5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	74	410	1900	250	500	649	306	3550	161	31	2040
2	59	77	420	1800	220	1150	694	295	1310	148	28	1250
3	56	75	440	1900	205	1500	1700	291	516	132	23	3120
4	57	78	450	1900	190	900	1320	275	369	99	20	3320
5	54	80	480	1800	190	600	916	269	279	75	20	477
6	55	96	500	1700	180	1200	566	269	233	65	21	277
7	57	100	480	1500	170	482	295	269	201	77	45	220
8	56	96	450	1200	180	447	235	283	178	93	42	215
9	55	102	520	1500	210	436	200	278	161	69	165	180
10	56	97	500	1400	250	389	173	1640	153	57	395	164
11	56	60	1000	1650	300	406	196	713	161	211	436	163
12	57	350	1500	1600	350	901	244	324	176	177	239	172
13	58	1300	1200	1450	400	3090	301	207	215	221	150	2630
14	59	1200	1000	700	450	1690	259	166	196	146	132	426
15	56	1100	500	400	500	421	3030	161	161	107	133	223
16	58	800	1200	1600	490	284	2540	169	196	90	919	191
17	58	500	1300	1500	520	359	1380	293	262	60	755	178
18	60	323	1600	900	540	221	820	274	279	63	296	235
19	65	249	2000	1600	560	381	566	205	279	67	200	170
20	64	226	2200	1000	500	916	851	269	250	38	180	147
21	63	200	2150	300	620	494	3650	1920	262	46	213	124
22	65	600	2000	200	720	574	3630	6660	257	39	202	104
23	67	1500	1600	180	820	447	2230	3820	256	101	192	98
24	68	1000	1500	160	1400	389	1500	2300	239	102	161	85
25	66	359	1400	180	1200	395	1130	1080	229	98	162	82
26	70	254	1300	140	1000	335	632	464	219	340	800	79
27	69	1000	1100	120	700	269	376	1520	195	119	3040	81
28	70	700	1500	110	600	395	341	2200	190	78	526	78
29	70	500	1600	560	---	780	328	1100	175	58	191	73
30	72	400	1800	640	---	1530	300	562	164	46	183	108
31	73	---	2000	320	---	1350	---	3070	---	36	183	---
TOTAL	1907	13496	36100	31910	13795	23189	31060	30532	11306	3219	10083	16702
MEAN	61.5	450	1165	1029	493	748	1035	985	377	104	325	557
MAX	73	1500	2200	1900	1400	3090	3650	6660	3550	340	3040	3320
MIN	54	60	410	110	170	221	173	161	153	36	20	73
AC-FT	3780	26770	71600	63290	27360	46000	61610	60560	22430	6380	20000	33130

CAL YR 1976 TOTAL 181208.6 MEAN 495 MAX 5800 MIN 1.8 AC-FT 359400
WTR YR 1977 TOTAL 223299.0 MEAN 612 MAX 6660 MIN 20 AC-FT 442900

06796000 PLATTE RIVER AT NORTH BEND, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°27'10", long 96°45'50", in SE1/4 sec.7, T.17 N., R.6 E., Dodge County, Hydrologic Unit 10200201, on left bank 80 ft (24 m) upstream from bridge on State Highway 79, 1 mi (2 km) south of North Bend, and 5 mi (8 km) downstream from Shell Creek.

DRAINAGE AREA.--77,100 mi² (199,700 km²), approximately, of which about 63,300 mi² (163,900 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1949 to current year.

REVISED RECORDS.--WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,262.32 ft (384.755 m) above mean sea level. Prior to Sept. 12, 1951, nonrecording gage and Sept. 12, 1951, to Sept. 30, 1970, water-stage recorder, at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--28 years, 4,001 ft³/s (113.3 m³/s), 2,899,000 acre-ft/yr (3.57 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 112,000 ft³/s (3,170 m³/s) Mar. 29, 1960, gage height, 10.04 ft (3.060 m), present datum; maximum gage height, 12.24 ft (3.731 m) Feb. 20, 1971, ice jam; minimum daily discharge, 36 ft³/s (1.02 m³/s) July 29, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,800 ft³/s (504 m³/s) Sept. 4, gage height, 6.53 ft (1.990 m); maximum gage height, 7.29 ft (2.222 m) Feb. 23 (backwater from ice); minimum daily discharge, 450 ft³/s (12.7 m³/s) Nov. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2500	3050	500	1900	3100	6200	7280	4950	12300	1206	522	4670
2	2040	3650	600	1550	3200	5910	6680	4020	7690	1370	1330	9320
3	1900	3070	1200	1600	3500	3900	8690	4900	6630	1050	576	7800
4	1760	3070	1200	1600	3600	7630	9410	5190	5780	1250	701	14200
5	1720	2500	1140	1550	3300	6250	7800	5670	4650	530	986	8970
6	1760	2650	1100	1500	3200	4820	7120	5100	4520	565	1420	6390
7	1790	3380	1100	1500	3300	4500	6600	5600	4230	573	2020	4780
8	1800	2050	1100	1450	3400	4040	5180	4410	4290	513	2140	4160
9	1850	3390	1160	1400	3500	4010	5220	4370	3800	733	3570	3020
10	2000	3170	1300	1350	3600	4120	4820	6210	2630	1330	3220	2840
11	1960	3130	1500	1300	3800	4230	4160	6780	3310	2130	3030	3060
12	3320	2720	1700	1600	4000	4620	3590	9980	2740	2270	2480	3100
13	1930	1900	2000	1800	3800	7660	5500	5810	2480	3750	2210	4320
14	1900	1350	2200	2500	3700	6790	4510	4350	3150	3170	1580	6260
15	1950	1700	2400	2400	3700	5680	5520	3860	3100	2840	1780	4910
16	1250	2300	2700	2100	3900	4660	10300	3510	3800	2390	3110	4260
17	1550	2450	3000	2200	4000	6510	6730	4010	3380	1840	6090	3870
18	1620	3680	2900	2300	4200	4140	5870	4860	3700	731	4510	2960
19	1810	3890	2800	2400	4300	4530	5840	4140	3650	1280	3620	3460
20	2060	3450	2500	2500	4500	6330	5630	3830	3140	1080	3230	3100
21	1270	3500	2300	2700	4800	6500	7620	7130	3170	710	3920	3240
22	1900	3120	2400	2700	5600	5880	13200	11800	3570	541	2350	2580
23	2300	2470	2900	2800	6200	6120	10800	13600	3250	1020	2280	3290
24	2410	2900	2400	2800	9800	6390	9580	9410	3120	2390	2950	2800
25	2900	3440	2350	2900	11500	5160	7770	7060	3450	1360	2980	2910
26	2020	2830	2400	2900	10800	5740	7650	8020	3400	3000	3880	2580
27	3500	2350	2500	2800	9200	5700	7350	8980	3390	2720	6100	3000
28	3040	1100	2300	2700	6700	5450	6830	13200	2550	1780	6150	2820
29	2950	600	2000	2800	---	6240	6120	9520	2080	1030	4190	2950
30	3150	450	1700	3000	---	7300	5290	7890	1760	1940	4100	2810
31	3330	---	1650	3100	---	7680	---	7670	---	1530	6210	---
TOTAL	68120	81990	58400	67100	138200	174270	208020	202670	118530	48596	93915	134490
MEAN	2197	2733	1884	2165	4936	5622	6934	6538	3951	1568	3030	4483
MAX	3500	3890	3000	3100	11500	7660	13200	13600	12300	3750	6210	14200
MIN	1250	450	500	1300	3100	3900	3590	3510	1760	513	522	2580
AC-FT	135100	162600	115800	133100	274100	345700	412600	402000	235100	96390	186300	266800

CAL YR 1976 TOTAL 1050885 MEAN 2871 MAX 13000 MIN 126 AC-FT 2084000
WTR YR 1977 TOTAL 1394301 MEAN 3820 MAX 14200 MIN 450 AC-FT 2766000

06796000 PLATTE RIVER AT NORTH BEND, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1972 to current year.
WATER TEMPERATURES: October 1972 to current year.

REMARKS.--Daily specific conductance and water temperatures for 1976 water year were not published owing to questionable reliability of observations for most of the year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 790 micromhos June 25, 1973; minimum daily, 210 micromhos Sept. 19, 1977.
WATER TEMPERATURES: Maximum, 29.5°C several days during summer periods, minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 723 micromhos Dec. 13; minimum daily, 210 micromhos Sept. 19.
WATER TEMPERATURES: Maximum, 27.5°C on several days during summer period, minimum, 0.0°C Nov. 16.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM (COL. PER 100 ML) (31616)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)
OCT 14...	1110	1700	380	7.0	10.0	8	25	--	9.9	27	--
NOV 08...	1100	3410	400	8.3	4.5	10	30	11.7	4.5	--	20
DEC 30...	1200	3000	526	7.7	.5	12	--	11.3	2.0	--	87
FEB 01...	1200	3140	420	7.8	.0	7	8	11.4	2.4	--	103
MAR 01...	1300	6800	355	7.8	2.0	25	30	12.5	4.0	--	73
APR 07...	1330	6560	570	7.9	14.0	35	50	8.0	4.3	--	270
MAY 11...	1330	8340	480	8.5	20.0	26	35	11.4	9.2	--	600
31...	1200	8000	532	8.0	21.0	65	150	6.8	5.4	--	7670
JUL 13...	1300	4390	320	8.5	28.5	65	200	8.5	6.8	--	1100
AUG 02...	1245	798	365	8.1	26.5	53	60	10.3	7.2	--	320
SEP 08...	1200	3470	450	8.3	24.0	40	130	8.9	3.7	--	1170

DATE	STREPTOCOCCI (COLONIES PER 100 ML) (31679)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)
OCT 14...	104	--	140	3	41	9.1	24	.9	8.4	167	0
NOV 08...	88	--	140	7	40	9.9	26	1.0	7.7	145	9
DEC 30...	70	--	180	18	52	11	38	1.3	8.9	192	0
FEB 01...	42	--	150	3	46	9.4	24	.8	7.7	184	0
MAR 01...	36	--	130	10	38	8.6	29	1.1	7.0	147	0
APR 07...	1600	--	200	39	57	13	40	1.2	10	191	0
MAY 11...	900	--	160	21	46	12	34	1.2	9.5	170	0
31...	13600	--	190	41	54	13	38	1.2	11	180	0
JUL 13...	--	700	120	0	36	7.3	15	.6	9.6	150	0
AUG 02...	--	160	150	0	46	8.2	17	.6	9.3	190	0
SEP 08...	--	383	160	18	45	11	34	1.2	11	170	0

06796000 PLATTE RIVER AT NORTH BEND, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)
OCT										
14...	137	52	9.6	.4	43	273	269	.37	1250	.01
NOV										
08...	134	56	8.7	.4	43	294	272	.40	2710	.58
DEC										
30...	157	83	12	.4	45	359	348	.49	2910	.74
FEB										
01...	151	55	7.6	.4	45	293	286	.40	2480	.72
MAR										
01...	121	56	7.4	.3	35	241	257	.33	4430	.57
APR										
07...	160	100	15	.4	33	379	366	.52	6710	.71
MAY										
11...	139	83	11	.5	31	318	311	.43	7160	.03
31...	150	100	18	.4	24	337	349	.46	7280	.40
JUL										
13...	120	28	5.7	.3	34	207	210	.28	2450	.46
AUG										
02...	160	27	6.3	.4	39	235	247	.32	506	.05
SEP										
08...	140	71	16	.4	30	305	304	.41	2860	.25

DATE	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO-GEN (N) (MG/L) (00605)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L) (00625)	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOL-VED PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)
OCT										
14...	--	.01	.64	.65	.66	.22	.12	50	60	0
NOV										
08...	--	.01	.64	.65	1.2	.24	.13	60	30	30
DEC										
30...	.66	.04	.39	.43	1.2	.19	.16	70	60	80
FEB										
01...	--	.04	1.7	1.7	2.4	.20	.14	50	40	20
MAR										
01...	.56	.07	.77	.84	1.4	.19	.17	50	120	120
APR										
07...	.71	.02	--	--	--	.65	.30	80	50	10
MAY										
11...	--	.00	2.0	2.0	2.0	.48	.09	70	30	20
31...	.40	.06	1.7	1.8	2.2	.58	.23	90	20	0
JUL										
13...	--	.07	2.4	2.5	3.0	.55	.24	60	130	4
AUG										
02...	--	.02	1.1	1.1	1.2	.34	.19	50	80	4
SEP										
08...	.25	.02	.45	.47	.72	.47	.29	80	30	20

DATE	TIME	CHEM-ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L) (00608)	DIS-SOLVED ORGANIC NITRO-GEN (N) (MG/L) (00607)	SUS-PENDED KJEL. NITRO-GEN (N) (MG/L) (00624)	DIS-SOLVED KJEL. NITRO-GEN (N) (MG/L) (00623)	TOTAL ARSENIC (AS) (UG/L) (01002)	SUS-PENDED ARSENIC (AS) (UG/L) (01001)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	TOTAL CAD-MIUM (CD) (UG/L) (01027)
DEC										
30...	1200	21	.04	.36	.03	.40	--	--	8	<10
MAR										
01...	1300	30	.08	.30	.54	.30	8	3	5	<10
APR										
07...	1330	33	.00	--	--	--	7	4	3	<10
MAY										
31...	1200	65	.04	.51	1.3	.55	16	9	7	<10
SEP										
08...	1200	44	.01	.18	.28	.19	8	3	5	10

06796000 PLATTE RIVER AT NORTH BEND, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	SUS-PENDED CAD-MIUM (CD) (UG/L) (01026)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)	TOTAL CHRO-MIUM (CR) (UG/L) (01034)	SUS-PENDED CHRO-MIUM (CR) (UG/L) (01031)	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	SUS-PENDED COBALT (CO) (UG/L) (01036)	DIS-SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	SUS-PENDED COPPER (CU) (UG/L) (01041)
DEC 30...	<10	0	0	0	0	<50	<50	0	40	29
MAR 01...	<4	6	0	0	0	<50	<49	1	<10	<4
APR 07...	<6	4	0	0	0	<50	<50	0	30	21
MAY 31...	<5	5	10	0	10	<50	<50	0	20	17
SEP 08...	8	2	10	10	0	<50	<50	0	10	4

DATE	DIS-SOLVED COPPER (CU) (UG/L) (01040)	TOTAL IRON (FE) (UG/L) (01045)	TOTAL LEAD (PB) (UG/L) (01051)	SUS-PENDED LEAD (PB) (UG/L) (01050)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	TOTAL MAN-GANESE (MN) (UG/L) (01055)	SUS-PENDED MAN-GANESE (MN) (UG/L) (01054)	TOTAL MERCURY (HG) (UG/L) (71900)	SUS-PENDED MERCURY (HG) (UG/L) (71895)
DEC 30...	11	520	<100	<100	0	80	0	.3	.2
MAR 01...	6	2900	<100	<99	1	120	0	.2	.2
APR 07...	9	4000	100	94	6	120	110	.2	.2
MAY 31...	3	13000	<100	<91	9	460	460	.1	.1
SEP 08...	6	5700	<100	<75	25	200	180	.4	.4

DATE	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELE-NIUM (SE) (UG/L) (01147)	SUS-PENDED SELE-NIUM (SE) (UG/L) (01146)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	TOTAL ZINC (ZN) (UG/L) (01092)	SUS-PENDED ZINC (ZN) (UG/L) (01091)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
DEC 30...	.1	1	0	1	0	70	30	40	4.0
MAR 01...	.0	2	0	2	0	20	0	20	8.2
APR 07...	.0	3	1	2	0	30	0	30	8.6
MAY 31...	.0	2	0	2	0	70	60	10	28
SEP 08...	.0	2	1	1	0	50	50	0	11

DATE	TIME	DIS-SOLVED PCB (UG/L) (39517)	DIS-SOLVED ALDRIN (UG/L) (39331)	DIS-SOLVED CHLOR-DANE (UG/L) (39352)	DIS-SOLVED DDD (UG/L) (39361)	DIS-SOLVED DDE (UG/L) (39366)	DIS-SOLVED DDT (UG/L) (39371)	DIS-SOLVED DI-AZINON (UG/L) (39572)	DIS-SOLVED DI-ELDRIN (UG/L) (39381)	DIS-SOLVED ENDRIN (UG/L) (39391)
APR 07...	1330	.0	.00	.0	.00	.00	.00	.00	.00	.00
MAY 31...	1200	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED HEPTA-CHLOR (UG/L) (39411)	DIS-SOLVED HEPTA-CHLOR EPOXIDE (UG/L) (39421)	DIS-SOLVED LINDANE (UG/L) (39341)	DIS-SOLVED MALA-THION (UG/L) (39532)	DIS-SOLVED METHYL PARA-THION (UG/L) (39602)	DIS-SOLVED PARA-THION (UG/L) (39542)	DIS-SOLVED TOX-APHENE (UG/L) (39401)	DIS-SOLVED 2,4-D (UG/L) (39732)	DIS-SOLVED 2,4,5-T (UG/L) (39742)	DIS-SOLVED SILVEX (UG/L) (39762)
APR 07...	.00	.00	.00	.00	.00	.00	0	.04	.06	.01
MAY 31...	--	--	--	--	--	--	--	.13	.03	.00

06796000 PLATTE RIVER AT NORTH BEND, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE TIME	OCT 13,76 1100	NOV 8,76 1100	FEB 1,77 1210	MAR 1,77 1300	MAY 11,77 1330
TOTAL CELLS/ML	23000	8200	9800	13000	120000
DIVERSITY: DIVISION	1.0	0.8	1.4	0.4	0.9
.CLASS	1.0	0.8	1.4	0.4	0.9
..ORDER	1.0	1.4	1.9	0.7	1.2
...FAMILY	2.0	2.8	2.8	2.5	2.4
....GENUS	2.0	3.2	3.2	2.6	3.0

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	--	-	--	-
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	2900	13	--	-	--	-	--	-	7300	6
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	--	-	--	-	--	-
....MICRACTINIUM	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	240	3	*	0	220	2	10000	9
....CHODATELLA	--	-	--	-	--	-	--	-	*	0
....DICTYOSPHAERIUM	--	-	--	-	190	2	--	-	250000#	21
....KIRCHNERIELLA	--	-	--	-	190	2	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	--	-	7300	6
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	1900	8	240	3	790	8	290	2	320000#	28
....TETRASTRUM	--	-	190	2	--	-	--	-	--	-
..TETRASPORALES										
...PALMELLACEAE										
....SPHAEROCYSTIS	--	-	1200	14	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	--	-	430	3	910	1
...PHACOTACEAE										
....PTEROMONAS	--	-	--	-	*	0	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....CLOSTERIUM	--	-	--	-	--	-	--	-	--	-
....COSMARIUM	--	-	--	-	--	-	--	-	--	-
....STAURASTRUM	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06796000 PLATTE RIVER AT NORTH BEND, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 13,76		NOV 8,76		FEB 1,77		MAR 1,77		MAY 11,77	
TIME	1100		1100		1200		1300		1330	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	480	6	1200	12	510	4	10000	9
....MELOSIRA	--	-	290	4	840	9	140	1	910	1
....STEPHANODISCUS	--	-	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	48	1	230	2	72	1	--	-
....COCCONEIS	--	-	48	1	*	0	--	-	--	-
...CYMBELLACEAE										
....AMPHORA	--	-	48	1	--	-	72	1	--	-
....CYMBELLA	--	-	48	1	*	0	220	2	--	-
....EPITHEMIA	480	2	--	-	--	-	--	-	--	-
....RHOPALODIA	--	-	48	1	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	13000#	57	48	1	93	1	720	5	--	-
...EUNOTIACEAE										
....EUNOTIA	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE										
....FRAGILARIA	--	-	1700#	20	930	9	6000#	45	11000	10
....SYNEDRA	--	-	140	2	190	2	--	-	--	-
...GOMPHONEMATACEAE										
....GOMPHONEIS	--	-	--	-	*	0	--	-	--	-
....GOMPHONEMA	--	-	96	1	--	-	72	1	--	-
...MERIDIONACEAE										
....MERIDION	--	-	--	-	--	-	--	-	*	0
...NAVICULACEAE										
....CALONEIS	--	-	48	1	93	1	--	-	--	-
....DIPLONEIS	--	-	--	-	--	-	72	1	--	-
....GYROSIGMA	--	-	--	-	*	0	--	-	--	-
....MASTOGLOIA	--	-	--	-	--	-	--	-	--	-
....NAVICULA	2700	12	1100	13	1400	15	1300	10	2300	2
....NEIDIUM	--	-	--	-	--	-	--	-	--	-
....PINNULARIA	--	-	140	2	--	-	290	2	--	-
....STAURONEIS	--	-	--	-	93	1	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	240	1	2100#	26	230	2	2900#	22	8200	7
...SURIRELLACEAE										
....SURIRELLA	480	2	--	-	*	0	140	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROCCOCCALES										
...CHROCCOCCAEAE										
....AGMENELLUM	--	-	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	--	-	--	-	--	-	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	--	-
....APHANIZOMENON	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	3000#	31	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	--	-
....TRACHELOMONAS	1200	5	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06796000 PLATTE RIVER AT NORTH BEND, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	MAY 31,77		JUL 13,77		AUG 2,77		SEP 8,77	
TIME	1200		1300		1245		1200	
TOTAL CELLS/ML	82000		120000		260000		41000	
DIVERSITY: DIVISION	1.5		1.2		1.0		1.2	
.CLASS	1.5		1.2		1.0		1.2	
..ORDER	1.8		1.6		1.1		1.3	
...FAMILY	2.7		2.3		1.4		2.5	
....GENUS	3.2		3.1		1.7		3.3	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	*	0	--	-
...COELASTRACEAE								
....COELASTRUM	1700	2	4000	3	2200	1	1500	4
...HYDRODICTYACEAE								
....PEDIASTRUM	*	0	5300	4	2200	1	1900	5
...MICRACTINIACEAE								
....GOLENKINIA	420	1	--	-	--	-	--	-
....MICRACTINIUM	4200	5	2300	2	--	-	490	1
...OOCYSTACEAE								
....ANKISTRODESMUS	1700	2	1300	1	4300	2	1800	4
....CHODATELLA	--	-	--	-	--	-	*	0
....DICTYOSPHAERIUM	840	1	--	-	--	-	5200	13
....KIRCHNERIELLA	1900	2	660	1	1900	1	1100	3
....OOCYSTIS	2500	3	2000	2	--	-	*	0
....SELENASTRUM	--	-	--	-	--	-	240	1
....TETRAEDRON	*	0	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	490	1
...SCENEDESMACEAE								
....ACTINASTRUM	4200	5	9300	8	--	-	1700	4
....CRUCIGENIA	--	-	4000	3	*	0	490	1
....SCENEDESMUS	17000#	21	51000#	41	43000#	16	13000#	31
....TETRASTRUM	840	1	1300	1	--	-	--	-
..TETRASPORALES								
...PALMELLACEAE								
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	630	1	--	-	--	-	--	-
...PHACOTACEAE								
....PTEROMONAS	--	-	--	-	--	-	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....CLOSTERIUM	*	0	--	-	--	-	--	-
....COSMARIUM	--	-	--	-	*	0	--	-
....STAURASTRUM	--	-	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06796000 PLATTE RIVER AT NORTH BEND, NE.--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	MAY 31,77		JUL 13,77		AUG 2,77		SEP 8,77	
TIME	1200		1300		1245		1200	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	4900	6	1300	1	1400	1	--	-
....MELOSIRA	1500	2	4300	3	--	-	2700	6
....STEPHANODISCUS	--	-	--	-	1400	1	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	--	-
....COCCONEIS	*	0	--	-	--	-	*	0
...CYMBELLACEAE								
....AMPHORA	--	-	--	-	--	-	--	-
....CYMBELLA	--	-	--	-	--	-	--	-
....EPITHEMIA	--	-	*	0	--	-	--	-
....RHOPALODIA	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	--	-	*	0	360	1
...EUNOTIACEAE								
....EUNOTIA	*	0	--	-	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	22000#	26	--	-	--	-	--	-
....SYNEDRA	*	0	*	0	5100	2	610	1
...GOMPHONEMATACEAE								
....GOMPHONEIS	--	-	--	-	--	-	--	-
....GOMPHONEMA	*	0	--	-	--	-	--	-
...MERIDIONACEAE								
....MERIDION	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....CALONEIS	--	-	--	-	--	-	--	-
....DIPLONEIS	--	-	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	--	-	--	-
....MASTOGLOIA	*	0	--	-	--	-	--	-
....NAVICULA	420	1	660	1	*	0	*	0
....NEIDIUM	*	0	--	-	--	-	--	-
....PINNULARIA	*	0	--	-	--	-	--	-
....STAURONEIS	--	-	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	3400	4	7000	6	--	-	240	1
...SURIRELLACEAE								
....SURIRELLA	*	0	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	5300	4	180000#	69	7300#	18
....ANACYSTIS	14000#	17	9300	8	13000	5	1900	5
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	*	0	--	-	--	-
....APHANIZOMENON	--	-	--	-	3500	1	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	15000	12	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	*	0	--	-
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	*	0	--	-	--	-	*	0
....TRACHELOMONAS	--	-	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

DATE	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	CHLOR-A PERI- PHYTON CHROMO- SPECT- METRIC (MG/M2) (70955)	CHLOR-B PERI- PHYTON CHROMO- SPECT- METRIC (MG/M2) (70956)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70958)
NOV 08...	1906	.565	.180	--	--
MAY 31...	40510	--	--	.039	.007
JUN 29...	2578	--	--	.128	.023
AUG 02...	2469	--	--	.798	1.05

06796000 PLATTE RIVER AT NORTH BEND, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	356	337	511	433	443	447	329	408	423	428	297	270
2	432	320	540	425	449	457	317	415	397	438	292	273
3	433	321	562	378	465	458	313	414	395	526	288	247
4	431	384	551	329	447	441	313	348	398	386	290	250
5	442	384	558	363	463	438	319	348	398	550	293	288
6	438	395	508	387	457	358	452	347	398	508	287	288
7	462	396	500	441	372	357	457	448	397	548	287	290
8	463	401	497	390	370	358	425	448	408	456	289	338
9	523	405	513	407	381	355	457	452	408	447	285	338
10	523	357	512	401	342	327	369	317	408	313	305	335
11	527	332	495	319	337	327	369	308	405	304	308	338
12	313	550	709	468	337	327	369	320	348	328	286	338
13	304	556	723	505	361	313	447	315	360	330	341	338
14	343	388	434	503	279	311	387	318	354	295	360	337
15	374	388	498	462	283	333	383	318	340	283	360	337
16	394	393	385	463	283	313	321	307	348	287	365	347
17	371	504	495	466	279	307	318	310	348	358	365	345
18	368	489	394	483	283	334	323	310	358	398	358	308
19	546	350	397	483	284	333	365	317	349	397	298	218
20	348	300	460	481	284	337	358	258	348	392	260	219
21	476	301	392	478	287	338	282	260	367	382	296	339
22	346	301	418	428	295	313	315	258	368	380	297	408
23	300	577	415	469	295	312	348	262	366	398	297	420
24	382	333	448	424	293	365	385	283	363	372	258	418
25	344	337	440	467	309	360	361	283	358	372	258	419
26	354	361	455	428	312	427	360	278	367	357	258	293
27	317	331	457	489	310	426	350	282	372	362	260	293
28	318	544	458	489	452	380	425	282	368	358	261	290
29	350	531	437	487	---	378	408	278	372	354	260	284
30	338	512	521	485	---	378	428	365	368	360	262	285
31	338	---	525	481	---	314	---	363	---	363	258	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.5	8.5	0.5	1.5	0.5	1.5	8.0	22.0	25.0	27.0	24.0	22.0
2	17.0	9.0	0.5	1.0	0.5	1.5	8.5	20.0	25.0	26.0	24.0	22.0
3	18.0	8.5	1.0	0.5	0.5	2.0	8.0	19.5	25.0	26.5	23.5	23.0
4	16.0	2.5	1.5	0.5	0.5	2.5	8.5	18.5	25.0	26.5	23.5	23.5
5	13.0	3.0	1.0	1.0	1.0	2.5	9.0	17.5	25.0	26.5	23.5	23.0
6	10.0	4.5	0.5	1.0	1.0	3.0	9.5	17.5	24.5	27.0	24.0	24.0
7	9.5	3.5	0.5	0.5	1.0	4.5	9.0	18.5	25.0	27.0	23.5	24.5
8	9.5	2.0	0.5	0.5	1.5	5.0	12.5	19.0	25.0	26.0	23.5	24.0
9	10.5	2.5	0.5	0.5	1.5	6.5	17.5	19.5	24.5	27.0	23.0	24.0
10	13.0	3.0	0.5	0.5	2.0	7.5	17.0	22.5	25.0	26.5	23.0	23.0
11	14.5	1.0	1.0	0.5	2.0	8.5	17.0	23.0	24.5	26.5	23.5	20.0
12	15.5	1.0	1.5	0.5	2.0	9.5	16.5	23.5	25.5	26.0	23.0	20.0
13	14.5	1.5	0.5	1.0	2.0	9.5	16.5	22.0	25.5	26.5	22.5	19.5
14	13.5	1.0	3.0	1.0	1.5	9.5	17.0	22.5	25.5	26.5	22.5	19.0
15	10.0	1.0	1.0	1.0	1.5	9.5	17.0	22.0	25.5	27.0	22.5	19.5
16	7.0	0.0	0.5	1.0	1.5	9.5	17.5	21.0	26.0	26.5	22.0	19.0
17	8.5	1.0	1.0	1.0	1.5	9.5	17.0	20.5	26.5	27.0	22.0	19.0
18	5.5	2.5	1.0	1.0	2.0	8.5	16.5	22.0	26.0	27.0	21.5	19.0
19	5.0	4.0	1.0	1.0	2.0	7.0	15.5	20.5	27.0	27.0	20.0	19.5
20	4.5	3.0	1.0	1.5	2.0	6.5	15.5	20.5	27.0	27.5	20.0	19.5
21	4.0	3.5	0.5	1.0	2.5	6.0	16.5	21.0	27.0	27.5	21.5	19.0
22	5.0	0.5	0.5	1.0	2.0	6.0	17.0	20.5	26.0	27.0	22.0	18.5
23	7.5	0.5	0.5	1.0	2.0	7.0	17.0	21.5	26.5	26.5	23.0	18.5
24	6.0	4.0	1.0	1.0	1.5	9.0	17.0	20.5	27.0	26.5	23.0	18.5
25	5.5	4.5	0.5	1.0	2.0	10.5	16.5	22.0	27.0	26.0	22.5	18.5
26	5.0	4.5	1.5	1.0	2.5	12.0	15.0	22.0	27.5	26.0	23.0	18.0
27	6.0	0.5	1.0	1.0	2.5	12.0	15.5	22.0	27.5	26.5	24.0	18.0
28	8.0	0.5	1.5	1.0	2.0	11.0	16.0	21.5	27.5	27.0	24.0	17.5
29	5.0	0.5	1.0	1.0	---	11.5	19.5	22.5	27.5	27.0	24.0	17.0
30	6.0	0.5	0.5	1.0	---	5.5	22.5	20.5	27.5	27.0	24.5	16.5
31	7.0	---	1.0	1.0	---	4.5	---	21.5	---	27.5	24.0	---

06796000 PLATTE RIVER AT NORTH BEND, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SUS-PENDED SEDI-MENT (MG/L) (80154)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT 14...	1100	1700	10.9	124	569	59	98	99	100	--
NOV 08...	1100	3410	8.5	246	2260	50	55	80	100	--
MAR 01...	1235	6800	.5	595	10900	26	38	76	99	100
APR 07...	1330	6560	10.0	356	6310	55	69	85	99	100
MAY 11...	1300	8310	20.0	533	12000	65	75	80	86	92
31...	1200	8000	21.0	830	18000	71	85	93	100	--
JUL 13...	1230	4390	28.5	535	6340	70	83	95	100	--
AUG 02...	1205	798	26.5	163	351	79	--	--	--	--
SEP 08...	1200	3470	24.0	396	3710	53	70	90	100	--
27...	1150	3840	20.5	305	3160	55	80	89	100	--

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
APR 07...	1330	6560	3	--	0	7	49	80	92	97	99	100
MAY 11...	1300	8310	5	0	1	6	42	73	90	96	100	--
31...	1200	8000	4	0	4	18	72	87	93	97	100	--
JUL 13...	1230	4390	4	0	1	17	61	83	97	99	100	--
AUG 02...	1205	798	2	0	2	19	58	83	98	99	100	--
SEP 08...	1200	3470	4	--	0	30	70	89	95	99	100	--
27...	1150	3840	4	--	0	10	60	86	92	98	100	--

06797500 ELKHORN RIVER AT EWING, NE

LOCATION.--Lat 42°16'03", long 98°20'11", in NW1/4SW1/4 sec.35, T.27 N., R.9 W., Holt County, Hydrologic Unit 10220001, on right bank 350 ft (107 m) downstream from bridge on State Highway 420, 0.8 mi (1.3 km) north of Ewing, and 1.5 mi (2.4 km) upstream from South Fork Elkhorn River.

DRAINAGE AREA.--1,400 mi² (3,630 km²), approximately, of which about 740 mi² (1,920 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1947 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,836 ft (559.6 m), from topographic map. Prior to Oct. 22, 1952, at site 300 ft (90 m) upstream at same datum.

REMARKS.--Records good except those for winter period, which are poor. Periodic temperature and conductance measurements are published in tables for water quality at miscellaneous sites.

AVERAGE DISCHARGE.--30 years, 168 ft³/s (4.758 m³/s), 121,700 acre-ft/yr (0.150 km³/yr); median of yearly mean discharges, 110 ft³/s (3.115 m³/s), 79,700 acre-ft/yr (98.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,500 ft³/s (212 m³/s) June 10, 1962, gage height, 10.60 ft (3.231 m); minimum daily, 5.2 ft³/s (0.15 m³/s) Sept. 6, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 11.32 ft (3.450 m) June 23, 24, 1947, from floodmark at site 300 ft (90 m) upstream, discharge, 6,600 ft³/s (187 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 21	2100	667	18.9	5.80	1.768	June 26	0730	*1430	40.5	7.13	2.173
May 27	1530	845	23.9	6.24	1.902						

Minimum daily discharge, 13 ft³/s (0.37 m³/s) Nov. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	28	21	18	22	58	204	156	342	352	54	36
2	19	28	23	19	23	65	222	140	298	330	53	39
3	20	28	24	20	25	65	210	131	256	261	54	42
4	18	27	24	20	24	55	190	122	224	211	51	40
5	17	27	26	19	23	52	170	113	198	170	48	37
6	18	28	24	19	23	61	161	104	174	146	47	35
7	17	28	22	20	23	68	150	97	152	139	45	35
8	17	29	21	19	25	77	140	94	138	148	44	34
9	17	29	22	18	26	96	131	90	126	126	44	32
10	17	29	22	17	28	110	120	85	120	136	43	29
11	17	27	23	17	29	131	110	80	118	207	45	28
12	17	25	23	18	29	165	104	76	118	254	46	36
13	17	23	26	18	36	196	98	73	128	225	46	42
14	17	25	28	19	44	226	138	74	131	185	43	41
15	18	28	32	17	40	242	147	70	126	161	41	40
16	18	33	33	15	60	232	145	68	117	143	42	38
17	17	37	35	16	74	234	138	71	138	128	41	38
18	19	31	37	17	76	222	138	66	159	115	42	37
19	20	30	35	18	80	184	134	73	168	105	41	37
20	21	31	28	19	84	156	238	87	178	95	41	35
21	23	30	32	21	81	136	298	485	176	142	40	35
22	24	27	30	21	65	126	305	584	192	115	39	34
23	24	27	30	22	71	123	355	509	461	100	40	34
24	25	29	32	23	45	120	386	506	755	91	39	32
25	25	30	32	23	60	114	391	569	1090	84	47	32
26	25	27	32	24	49	109	353	703	1380	79	44	31
27	25	16	33	23	60	104	303	820	1170	75	43	30
28	25	13	29	19	60	106	252	789	764	69	42	30
29	27	17	27	20	---	140	206	638	457	68	39	32
30	28	22	23	20	---	159	177	494	364	61	36	39
31	28	---	18	21	---	178	---	400	---	57	37	---
TOTAL	641	809	847	600	1285	4110	6114	8367	10218	4578	1357	1060
MEAN	20.7	27.0	27.3	19.4	45.9	133	204	270	341	148	43.8	35.3
MAX	28	37	37	24	84	242	391	820	1380	352	54	42
MIN	17	13	18	15	22	52	98	66	117	57	36	28
AC-FT	1270	1600	1680	1190	2550	8150	12130	16600	20270	9080	2690	2100

CAL YR 1976 TOTAL 26253.7 MEAN 71.7 MAX 702 MIN 5.2 AC-FT 52070
WTR YR 1977 TOTAL 39986.0 MEAN 110 MAX 1380 MIN 13 AC-FT 79310

06797500 ELKHORN RIVER AT EWING, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-1966, 1974-1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

06797500 - ELKHORN RIVER AT EWING, NEBR. (LAT 42 16 03 LONG 098 20 11)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	TEMPERATURE (DEG C) (00010)
OCT , 1976				
18...	1640	20	245	5.5
NOV				
08...	1650	29	200	8.0
DEC				
20...	1510	34	208	.5
JAN , 1977				
10...	1550	16	254	.5
FEB				
07...	1515	22	238	.5
MAR				
14...	1615	234	195	5.5
APR , 1977				
08...	1730	184	227	4.0
MAY				
16...	1730	69	212	25.0
JUN				
09...	1535	121	255	23.5
JUL				
18...	1605	113	202	31.0
AUG				
08...	1735	43	247	27.5
SEP				
22...	1030	35	237	14.5

06798500 ELKHORN RIVER AT NELIGH, NE

LOCATION.--Lat 42°07'20", long 98°01'40", in sec.20, T.25 N., R.6 W., Antelope County, Hydrologic Unit 10220001, on right bank 30 ft (9 m) downstream from bridge on old State Highway 14 at Neligh.

DRAINAGE AREA.--2,200 mi² (5,700 km²), approximately, of which about 1,200 mi² (3,110 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to September 1958, August 1960 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1006: 1935, 1942. WSP 1390: 1931-32, 1937(M). WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,713.88 ft (522.391 m) above mean sea level. Prior to Apr. 16, 1933, nonrecording gage at site 10 ft (3 m) downstream at present datum. Apr. 16, 1933, to Jan. 23, 1939, nonrecording gage at bridge 30 ft (9 m) upstream at present datum. Jan. 24, 1939 to Oct. 9, 1958 and Aug. 8, 1960 to Sept. 8, 1970 water-stage recorder at site 20 ft (6 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Periodic temperature, conductance, and sediment measurements are published in tables for water quality at miscellaneous sites.

AVERAGE DISCHARGE.--45 years, 278 ft³/s (7.873 m³/s), 201,400 acre-ft/yr (0.248 km³/yr); median of yearly mean discharges, 230 ft³/s (6.514 m³/s), 167,000 acre-ft/yr (0.206 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 12,000 ft³/s (340 m³/s) June 23, 1947, gage height, 12.53 ft (3.819 m), from main channel rating curve extended above 4,900 ft³/s (139 m³/s) and field estimate of flow through break in highway fill; minimum daily, 12 ft³/s (0.34 m³/s) July 2, 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 29, 1960, reached a stage of 12.24 ft (3.731 m), from floodmark, discharge, 12,300 ft³/s (348 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 21	0900	1140	32.3	5.39	1.643	June 23	0500	*1880	53.2	6.54	1.993
May 28	1330	1430	40.5	6.04	1.841	June 26	2000	1660	47.0	6.33	1.929

Minimum daily discharge, 45 ft³/s (1.27 m³/s) Nov. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	103	86	72	100	91	400	296	505	460	119	96
2	72	101	92	74	106	125	435	275	460	452	118	97
3	74	96	96	74	112	128	418	258	396	416	131	110
4	75	93	100	74	108	96	389	251	364	356	124	104
5	71	104	94	70	104	89	339	230	336	298	114	96
6	71	102	88	78	100	155	306	216	295	257	115	86
7	73	99	80	76	104	142	286	204	259	242	116	82
8	80	102	76	74	120	128	259	193	233	251	111	85
9	77	105	80	72	140	135	238	187	203	224	125	87
10	78	101	80	70	160	170	215	183	180	230	125	84
11	79	98	86	66	165	209	195	166	180	276	125	82
12	76	70	86	70	170	300	187	162	236	332	120	92
13	76	78	92	76	170	326	189	160	228	356	108	121
14	75	90	104	78	175	369	320	159	284	300	102	120
15	80	110	120	74	180	403	521	161	257	272	111	106
16	77	120	140	68	170	383	540	151	272	240	108	108
17	78	130	150	66	175	346	488	150	340	224	105	110
18	85	120	160	68	185	343	443	150	380	201	106	104
19	92	100	150	72	195	304	401	165	328	172	112	98
20	93	98	120	74	200	275	541	188	324	157	112	97
21	91	96	78	80	206	231	1030	505	364	239	107	97
22	94	90	88	86	215	219	976	1230	604	354	104	101
23	96	90	88	90	224	208	918	954	991	300	118	99
24	96	90	100	100	155	202	776	1280	930	239	112	92
25	90	106	106	104	148	196	679	1220	1130	198	149	87
26	96	98	106	108	168	196	629	1170	1490	169	178	86
27	98	45	110	104	168	193	531	1280	1510	152	137	86
28	102	66	112	100	135	211	452	1240	1030	143	125	86
29	108	76	90	80	---	380	382	1010	660	145	117	94
30	107	86	64	84	---	369	336	720	540	133	107	125
31	106	---	70	90	---	384	---	620	---	120	105	---
TOTAL	2650	2849	3092	2456	4338	7276	13815	15152	15229	7922	3666	2918
MEAN	85.5	95.0	99.7	79.2	155	235	461	489	508	256	118	97.3
MAX	108	130	160	108	224	403	1030	1280	1510	460	178	125
MIN	71	45	64	66	100	89	187	150	180	120	102	82
AC-FT	5260	5650	6130	4870	8600	14430	27400	30050	30210	15710	7270	5790

CAL YR 1976 TOTAL 63629 MEAN 174 MAX 1000 MIN 21 AC-FT 126200
WTR YR 1977 TOTAL 81363 MEAN 223 MAX 1510 MIN 45 AC-FT 161400

06798500 ELKHORN RIVER AT NELIGH, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	TEMPERATURE (DEG C) (00010)
OCT , 1976				
18...	1320	85	255	6.0
NOV				
08...	1300	102	241	6.0
DEC				
20...	1200	127	247	.5
JAN , 1977				
10...	1215	69	300	.5
FEB				
07...	1210	103	260	.5
MAR				
14...	1320	379	223	7.5
APR , 1977				
04...	1210	390	252	5.5
MAY				
16...	1345	150	245	24.0
JUN				
06...	1320	289	285	25.5
JUL				
18...	1250	203	262	29.0
AUG				
08...	1010	109	268	27.0
SEP				
19...	1400	98	273	19.5

06799000 ELKHORN RIVER NEAR NORFOLK, NE

LOCATION.--Lat 42°00'20", long 97°28'40", in SW1/4 sec.31, T.24 N., R.1 W., Madison County, Hydrologic Unit 10220003, on left bank 75 ft (23 m) downstream from bridge on county road, 3.5 mi (5.6 km) east-southeast of Norfolk, and 7 mi (11 km) upstream from North Fork Elkhorn River.

DRAINAGE AREA.--2,790 mi² (7,230 km²), approximately, of which about 1,790 mi² (4,640 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1896 to November 1903 (no winter records), October 1945 to current year. Gage height records collected at site 3.2 mi (5.1 km) downstream since May 1961 are contained in reports of U.S. Weather Bureau. Published as "at Norfolk" prior to October 1957.

REVISED RECORDS.--WSP 1390: 1896-1900. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,522.03 ft (463.915 m) above mean sea level. See WSP 1918 for history of changes prior to Aug. 30, 1950.

REMARKS.--Records fair except those for winter period, which are poor. Periodic temperature, conductance, and sediment measurements are published in tables for water quality at miscellaneous sites.

AVERAGE DISCHARGE.--32 years, 493 ft³/s (13.96 m³/s), 357,200 acre-ft/yr (0.440 hm³/yr); median of yearly mean discharges, 410 ft³/s (11.61 m³/s), 297,000 acre-ft/yr (0.366 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft³/s (479 m³/s) June 14, 1967, gage height, 8.52 ft (2.597 m); maximum gage height observed, 13.63 ft (4.154 m) Mar. 11, 1960, site and datum then in use, backwater from ice; minimum daily discharge, 37 ft³/s (1.05 m³/s) Aug. 30, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 13, 1944, reached a stage of 11.8 ft (3.60 m), previous site and datum, discharge, 14,300 ft³/s (405 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,080 ft³/s (116 m³/s) June 23 at 1900, gage height, 4.64 ft (1.414 m), no other peak above base of 2,000 ft³/s (56.6 m³/s); minimum daily, 120 ft³/s (3.40 m³/s) Nov. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	176	150	145	170	410	520	611	690	808	215	230
2	129	172	160	150	170	420	610	562	673	820	218	221
3	130	173	170	150	175	380	630	546	600	800	218	233
4	135	168	155	150	175	350	600	504	557	700	207	226
5	132	170	160	150	180	330	520	464	495	530	191	205
6	132	171	130	150	180	340	530	415	429	396	197	192
7	131	176	135	150	180	329	500	371	386	332	186	179
8	129	169	130	145	185	314	480	372	361	294	193	178
9	131	169	160	140	190	301	480	370	294	282	228	169
10	132	169	135	135	195	305	452	308	259	266	415	161
11	134	150	140	130	200	350	436	279	263	300	314	155
12	130	135	165	130	210	440	444	248	253	316	239	159
13	130	120	150	130	220	500	480	224	352	372	219	169
14	134	150	155	130	230	540	540	226	436	412	206	176
15	134	204	160	130	240	590	693	215	364	380	207	170
16	138	246	160	125	260	640	724	205	352	324	219	162
17	137	246	165	130	280	660	716	214	912	272	216	165
18	144	208	170	135	310	620	705	203	1040	231	207	160
19	151	204	165	135	340	610	687	197	688	210	196	155
20	158	204	160	135	370	620	697	214	481	191	182	154
21	165	204	150	140	400	590	1110	606	426	969	192	151
22	168	180	155	160	440	540	1290	1200	440	700	186	152
23	168	165	160	145	480	490	1250	1080	2300	570	187	157
24	172	155	150	150	520	452	1260	1070	1580	405	191	151
25	168	150	155	155	480	428	1130	1200	1780	436	197	144
26	145	165	160	160	460	420	1080	1040	1900	403	225	139
27	165	180	165	170	450	420	1030	1170	2100	366	272	141
28	168	130	155	170	440	420	921	1190	1730	306	258	146
29	172	140	165	170	---	560	789	1060	1200	289	229	149
30	176	160	165	170	---	560	702	879	1040	266	222	145
31	176	---	140	170	---	480	---	750	---	253	231	---
TOTAL	4560	5145	4695	4515	8130	14455	21966	18115	24325	13285	6851	5103
MEAN	147	172	151	146	290	466	732	584	811	429	221	170
MAX	176	246	170	170	520	660	1290	1200	2300	969	415	233
MIN	129	120	130	125	170	301	436	197	263	191	182	139
AC-FT	9040	10210	9310	8960	16130	28670	43570	35930	48250	26350	13590	10120

CAL YR 1976 TOTAL 97700 MEAN 267 MAX 1300 MIN 37 AC-FT 193800
WTR YR 1977 TOTAL 131145 MEAN 359 MAX 2300 MIN 120 AC-FT 260100

06799000 ELKHORN RIVER NEAR NORFOLK, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-1969, 1974-1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	TEMPERATURE (DEG C) (00010)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	TEMPERATURE (DEG C) (00010)
OCT , 1976					APR , 1977				
13...	0900	130	326	11.0	20...	1115	650	327	13.5
DEC					MAY				
14...	1600	155	337	.5	10...	1030	310	335	18.0
JAN , 1977					AUG				
05...	1600	149	348	.5	03...	1330	214	304	28.0
FEB					SEP				
17...	0900	282	285	.0	15...	1430	169	324	22.0
MAR									
10...	0955	303	315	2.0					

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SUSPENDED SEDIMENT (MG/L) (80154)	SUSPENDED SEDIMENT DISCHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)
MAR							
31...	0915	448	2.0	364	440	--	--
APR							
22...	1145	1200	13.0	969	3140	--	--
MAY							
21...	1330	729	18.0	1550	3050	51	59
22...	1000	940	18.5	2730	6930	46	57
JUN							
02...	1000	690	18.0	420	782	--	--

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM (70346)
MAR						
31...	--	37	50	88	97	100
APR						
22...	--	27	45	87	100	--
MAY						
21...	67	77	85	98	100	--
22...	65	75	82	96	100	--
JUN						
02...	--	20	20	96	100	--

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	NUMBER OF SAMPLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)
MAR											
31...	0915	448	21	8	13	50	87	95	99	99	100
APR											
22...	1145	1200	5	0	8	67	96	100	--	--	--
MAY											
10...	--	--	--	2	13	60	86	95	98	100	--
21...	1330	729	3	0	3	44	89	96	100	--	--
22...	1000	940	3	0	2	36	90	97	99	100	--
JUN											
02...	1000	690	10	0	4	55	93	100	--	--	--

06799080 WILLOW CREEK NEAR FOSTER, NE

LOCATION.--Lat 42°10'38", long 97°,40'02" in NW1/4NE1/4 sec.4, T.25 N., R.3 W., Pierce County, Hydrologic Unit 10220002, on left downstream bank at county road bridge, 6.8 mi (10.9 km) south of Foster and 7.2 mi (11.6 km) southwest of Pierce.

PERIOD OF RECORD.--October 1975 (monthly discharge only) to September 1977.

GAGE.--Water-stage recorder.

REMARKS.--Records good except those for winter period, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49 ft³/s (1.39 m³/s) Mar. 12, 1976, gage height, 3.71 ft (1.131 m); maximum gage height, 5.54 ft (1.689 m) Nov. 21, 1975, backwater from ice; minimum daily discharge, 2.6 ft³/s (0.074 m³/s) Aug. 28-30, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 45 ft³/s (1.27 m³/s) Apr. 21, gage height, 3.60 ft (1.097 m); maximum gage height, 4.10 ft (1.250 m) Jan. 28, backwater from ice; minimum daily discharge, 3.2 ft³/s (0.091 m³/s) Feb. 15, Sept. 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	5.2	3.9	4.0	4.5	5.2	9.2	8.6	11	10	4.7	3.7
2	4.3	5.2	3.8	4.3	4.9	5.0	11	7.7	9.8	8.9	4.5	3.8
3	4.2	4.8	4.5	4.5	5.2	5.2	9.9	8.8	9.0	8.7	5.2	4.3
4	4.2	4.5	4.3	4.5	5.4	6.0	9.8	8.8	8.5	7.8	4.9	4.2
5	4.0	5.1	4.6	4.5	4.9	7.0	9.0	7.9	8.1	7.0	4.4	3.8
6	3.8	5.2	3.9	4.4	4.4	8.0	8.7	6.8	7.4	6.3	4.1	3.7
7	4.0	4.8	3.5	4.5	4.6	9.2	8.6	6.7	6.9	6.5	4.2	3.6
8	4.1	5.0	4.1	4.1	4.7	10	8.1	6.7	6.9	6.4	4.2	3.7
9	4.2	5.1	4.9	3.9	4.8	10	7.9	6.8	6.6	5.7	6.0	3.5
10	4.3	4.7	4.5	3.7	4.9	8.6	7.6	6.3	6.8	5.6	5.0	3.5
11	4.2	3.8	5.0	4.0	4.7	9.6	7.3	6.0	7.0	6.0	4.5	3.5
12	4.2	3.6	5.0	4.4	4.3	12	7.3	6.0	7.9	5.9	4.4	3.7
13	4.2	4.1	5.4	4.6	4.5	9.3	7.3	5.7	9.0	5.2	4.1	4.1
14	4.3	4.6	5.4	5.0	4.0	8.3	12	5.4	8.5	4.3	3.7	3.7
15	3.9	4.9	5.6	4.3	3.2	8.4	13	5.2	8.3	4.3	3.9	3.4
16	3.8	4.9	5.4	3.3	3.4	7.5	11	4.9	8.6	4.3	4.7	3.5
17	3.9	5.7	5.6	3.5	3.8	7.3	11	5.5	11	4.2	4.4	4.0
18	3.9	5.7	6.0	3.7	3.7	7.1	10	5.4	12	4.1	4.1	3.5
19	4.1	5.1	5.6	4.0	3.8	7.1	11	5.4	10	3.7	4.2	3.2
20	4.3	5.0	5.0	4.3	3.9	7.3	20	6.7	9.9	4.1	4.0	3.2
21	4.3	4.2	4.6	4.4	5.4	6.9	37	26	10	25	3.8	3.6
22	4.3	4.1	5.0	4.6	5.0	6.9	34	33	11	17	3.6	4.0
23	4.5	5.2	4.7	4.6	4.9	6.8	21	24	21	11	3.9	4.1
24	4.6	5.2	5.6	4.7	5.0	6.7	16	21	17	9.6	4.1	3.7
25	4.5	5.1	5.4	4.5	4.8	6.6	14	18	14	8.7	4.6	3.7
26	4.4	4.7	5.4	4.4	4.5	6.5	12	18	15	8.1	4.7	3.6
27	4.5	4.0	5.2	4.0	4.9	6.4	11	21	13	7.5	4.2	3.6
28	4.7	3.6	4.7	4.2	5.4	7.5	10	21	11	6.9	3.5	3.7
29	4.8	3.7	4.3	4.4	---	13	9.0	16	10	6.6	3.4	4.1
30	4.9	4.0	3.8	4.3	---	9.0	9.0	15	13	6.0	3.6	5.8
31	4.8	---	3.5	4.2	---	8.3	---	13	---	5.0	4.1	---
TOTAL	132.6	140.8	148.2	131.8	127.5	242.7	372.7	357.3	308.2	230.4	132.7	113.5
MEAN	4.28	4.69	4.78	4.25	4.55	7.83	12.4	11.5	10.3	7.43	4.28	3.78
MAX	4.9	5.7	6.0	5.0	5.4	13	37	33	21	25	6.0	5.8
MIN	3.8	3.6	3.5	3.3	3.2	5.0	7.3	4.9	6.6	3.7	3.4	3.2
AC-FT	263	279	294	261	253	481	739	709	611	457	263	225

CAL YR 1976 TOTAL 2960.5 MEAN 8.09 MAX 30 MIN 2.6 AC-FT 5870
WTR YR 1977 TOTAL 2438.4 MEAN 6.68 MAX 37 MIN 3.2 AC-FT 4840

06799100 NORTH FORK ELKHORN RIVER NEAR PIERCE, NEBR.

LOCATION.--Lat 42°10'44", long 97°29'04", in SW1/4 sec.31, T.26 N., R.1 W., Pierce County, Hydrologic Unit 10220002, on left downstream wingwall of county road bridge, 2.5 mi (4.0 km) southeast of Pierce.

DRAINAGE AREA.--703 mi^2 (1,810 km^2), approximately, of which about 30 mi^2 (78 km^2) is noncontributing.

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,553.07 ft (473.376 m) above mean sea level (U.S. Weather Bureau levels).

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--17 years, 82.4 ft^3/s (2.334 m^3/s), 59,700 acre-ft/yr (73.6 hm^3/yr); median of yearly mean discharges, 68 ft^3/s (1.926 m^3/s), 49,300 acre-ft/yr (60.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,200 ft^3/s (430 m^3/s) Feb. 19, 1971, gage height, 15.10 ft (4.602 m); minimum daily, 3.8 ft^3/s (0.11 m^3/s) July 24, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 588 ft^3/s (16.7 m^3/s) May 22, gage height, 7.79 ft (2.374 m), no peak above base of 870 ft^3/s (24.6 m^3/s); minimum daily, 7.0 ft^3/s (0.20 m^3/s) July 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	20	21	18	24	34	42	42	74	54	17	17
2	17	20	23	22	26	50	50	40	58	33	15	17
3	19	20	25	22	29	42	52	42	51	31	13	17
4	18	20	21	22	28	37	50	42	46	28	12	18
5	17	21	19	21	26	39	47	39	42	25	11	17
6	17	22	20	21	24	38	45	37	38	23	11	17
7	17	21	19	22	30	38	42	35	35	21	12	17
8	18	21	21	21	35	49	40	35	33	21	12	17
9	18	21	23	19	40	54	40	34	31	24	23	17
10	20	21	22	16	40	55	38	33	31	35	19	17
11	18	21	24	17	39	68	37	32	31	22	17	17
12	16	20	25	18	32	77	40	31	38	16	16	18
13	17	17	25	18	35	65	44	30	54	12	15	18
14	17	19	25	17	31	54	52	29	40	10	15	18
15	17	21	25	16	27	51	70	29	37	8.6	16	18
16	17	23	26	15	31	46	60	29	37	9.1	31	18
17	18	27	28	17	35	43	55	30	130	10	19	19
18	19	25	30	21	34	42	53	30	70	9.3	17	19
19	20	23	25	26	33	42	52	30	52	7.9	17	18
20	20	23	17	26	40	43	65	32	43	7.0	16	19
21	19	23	20	25	66	41	124	192	42	282	17	19
22	19	23	24	26	62	40	128	474	43	95	16	19
23	19	25	23	28	60	39	91	220	180	34	17	20
24	20	25	24	27	116	38	69	135	63	28	17	20
25	20	26	24	26	108	37	58	94	52	26	18	20
26	20	24	25	26	58	38	52	74	45	24	18	20
27	20	20	26	24	40	38	49	165	44	22	17	19
28	20	15	24	20	37	40	47	278	41	21	17	20
29	21	19	21	23	---	54	45	91	39	20	16	20
30	21	23	18	22	---	54	43	74	149	19	16	25
31	20	---	15	22	---	45	---	74	---	18	18	---
TOTAL	576	649	708	664	1186	1431	1680	2560	1669	995.9	511	555
MEAN	18.6	21.6	22.8	21.4	42.4	46.2	56.0	82.6	55.6	32.1	16.5	18.5
MAX	21	27	30	28	116	77	128	474	180	282	31	25
MIN	16	15	15	15	24	34	37	29	31	7.0	11	17
AC-FT	1140	1290	1400	1320	2350	2840	3330	5080	3310	1980	1010	1100

CAL YR 1976 TOTAL 12264.7 MEAN 33.5 MAX 129 MIN 3.8 AC-FT 24330
WTR YR 1977 TOTAL 13184.9 MEAN 36.1 MAX 474 MIN 7.0 AC-FT 26150

06799350 ELKHORN RIVER AT WEST POINT, NE

LOCATION.--Lat 41°50'22", long 96°43'38", in SW1/4NW1/4 sec.34, T.22 N., R.6 E., Cuming county, Hydrologic Unit 10220003, on right bank near right downstream wingwall of bridge on State Highway 32 and 1 mi (2 km) west of West Point. Prior to May 18 at site on left bank 50 ft (15 m) upstream from bridge.

DRAINAGE AREA.--5,100 mi² (13,200 km²), approximately, of which about 4,100 mi² (10,600 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1972 to current year. March 1960 to September 1972 (no winter records 1960-68) in files of Corps of Engineers. Gage-height records collected since 1940 are in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 1,291.26 ft (393.576 m) above mean sea level. Prior to May 18, 1976 at site on left bank 50 ft (15 m) upstream from bridge at same datum.

REMARKS.--Records fair except those for winter period, which are poor. Some small diversions above station for irrigation.

AVERAGE DISCHARGE.--9 years (1968-77), 696 ft³/s (19.71 m³/s) (504,300 acre-ft/yr (0.622 km³/yr)).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge estimated, 33,000 ft³/s (935 m³/s) June 25, 1969, gage height, 13.21 ft (4.026 m); minimum daily, 41 ft³/s (1.16 m³/s) Aug. 31, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 31, 1960 reached a stage of 16.09 ft (4.904 m), backwater from ice; observed by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,500 ft³/s (127 m³/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
May 23	0945	5000	142	8.63	2.630	June 24	0415	*5450	154	8.86	2.701
May 27	2015	4570	129	8.57	2.612						

Minimum daily discharge, 130 ft³/s (3.68 m³/s) Jan. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	178	216	190	190	185	620	689	719	1080	1100	343	1810
2	179	215	200	200	185	600	763	651	923	998	323	679
3	179	205	200	200	190	580	780	697	1020	1130	336	568
4	173	205	190	200	190	520	804	773	1050	996	349	607
5	156	214	185	195	190	500	796	990	917	872	298	392
6	152	214	180	195	190	520	709	624	808	741	286	323
7	147	214	180	190	190	520	663	515	759	608	268	285
8	153	214	180	175	195	520	623	1200	693	511	285	274
9	160	230	185	170	200	520	597	881	633	446	304	298
10	168	219	190	165	210	505	573	601	622	422	658	285
11	172	205	200	160	220	637	526	490	628	656	700	251
12	176	180	200	160	230	767	485	430	600	469	540	257
13	182	170	200	160	240	779	554	389	624	420	407	285
14	180	190	200	160	250	838	523	357	642	436	316	274
15	168	220	200	140	270	838	618	336	744	505	607	262
16	164	280	205	130	290	802	730	308	1100	430	1590	268
17	160	343	210	135	330	826	877	309	1440	370	550	273
18	160	323	220	140	340	802	911	321	2780	329	356	303
19	168	298	210	140	370	733	882	291	1490	285	316	291
20	182	310	205	145	410	733	913	425	1360	262	310	299
21	176	298	200	145	450	711	951	1930	1140	446	304	279
22	176	298	210	150	500	658	1450	3170	1060	1740	298	258
23	177	279	215	155	560	578	1360	4310	2050	1390	274	261
24	177	323	220	160	660	550	1090	2340	3410	1200	291	258
25	177	304	230	170	760	522	1060	1970	1690	826	298	241
26	178	291	235	175	720	513	1090	1960	1630	617	308	230
27	184	240	240	180	660	505	1110	3010	2040	540	307	230
28	188	180	220	180	640	550	1020	4270	1870	496	325	231
29	192	190	200	180	---	647	918	2920	1380	438	327	238
30	200	200	195	180	---	658	815	1480	1250	392	296	248
31	211	---	190	180	---	668	---	1170	---	356	1170	---
TOTAL	5393	7260	6285	5205	9825	19720	24880	39837	37433	20427	13340	10758
MEAN	174	242	203	168	351	636	829	1285	1248	659	430	359
MAX	211	343	240	200	760	838	1450	4310	3410	1740	1590	1810
MIN	147	170	180	130	185	500	485	291	600	262	268	230
AC-FT	10700	14420	12470	10320	19490	39110	49350	79020	74250	40520	26460	21340

CAL YR 1976 TOTAL 140303 MEAN 383 MAX 2500 MIN 41 AC-FT 278300
WTR YR 1977 TOTAL 200371 MEAN 549 MAX 4310 MIN 130 AC-FT 397400

06799450 LOGAN CREEK AT PENDER, NE

LOCATION.--Lat 42°06'40", long 96°42'00", in NW1/4 sec.26, T.25 N., R.6 E., Thurston County, Hydrologic Unit 10220004, on right bank 200 ft (61 m) downstream from bridge on Nebraska State Highway 94 at Pender and 0.7 mi (1.1 km) downstream from Rattlesnake Creek.

DRAINAGE AREA.--731 mi² (1,890 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,300.96 ft (396.533 m) above mean sea level. Prior to Apr. 23, 1966, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--12 years, 127 ft³/s (3.597 m³/s), 92,010 acre-ft/yr (0.113 km³/yr); median of yearly mean discharges, 103 ft³/s (2.917 m³/s), 74,600 acre-ft/yr (92.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,900 ft³/s (1,050 m³/s) Feb. 19, 1971, gage height, 23.11 ft (7.044 m); minimum daily, 12 ft³/s (0.34 m³/s) Aug. 11, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 8	1600	*3590	102	9.63	2.935
May 28	0045	1830	51.8	7.56	2.304

Minimum daily discharge, 18 ft³/s (0.51 m³/s) Nov. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	35	20	29	23	36	52	41	61	137	25	31
2	32	36	20	31	26	43	63	40	58	69	25	31
3	32	36	24	33	30	50	66	44	54	56	23	38
4	32	35	23	34	30	70	60	49	51	51	21	86
5	33	37	22	33	28	68	56	45	49	48	39	46
6	32	38	21	32	27	80	53	43	46	45	25	37
7	32	36	20	32	26	100	51	41	45	99	26	33
8	32	36	20	30	27	150	48	1130	45	60	32	32
9	33	37	26	28	31	173	49	429	44	45	44	34
10	33	34	28	29	35	112	44	108	44	42	77	32
11	32	31	27	29	36	80	44	83	43	41	44	31
12	33	29	31	30	34	80	47	75	44	40	35	35
13	32	31	33	31	31	69	51	68	45	37	31	39
14	31	34	34	33	29	60	49	66	45	35	28	33
15	30	33	35	31	28	56	53	65	43	32	28	31
16	30	34	36	29	29	52	49	63	81	30	35	30
17	30	52	36	30	30	49	50	61	201	27	44	32
18	31	42	37	31	32	46	45	61	218	25	32	35
19	34	35	35	33	31	50	52	60	91	24	30	31
20	34	33	33	36	35	50	66	66	70	22	29	31
21	35	32	30	35	41	50	57	213	63	84	39	33
22	35	32	32	35	39	47	57	600	61	162	41	32
23	36	43	31	36	38	45	49	185	162	61	35	34
24	36	46	32	40	36	44	46	90	174	49	32	33
25	35	36	33	45	36	44	44	70	82	48	31	32
26	35	31	34	35	38	43	44	67	62	44	32	32
27	35	28	36	22	38	43	43	270	58	39	29	32
28	35	23	36	20	38	45	41	668	59	36	28	33
29	35	18	30	22	---	50	41	118	55	33	28	35
30	34	19	28	23	---	55	42	77	131	31	28	41
31	35	---	26	21	---	53	---	66	---	26	31	---
TOTAL	1027	1022	909	958	902	1993	1512	5062	2285	1578	1027	1065
MEAN	33.1	34.1	29.3	30.9	32.2	64.3	50.4	163	76.2	50.9	33.1	35.5
MAX	36	52	37	45	41	173	66	1130	218	162	77	86
MIN	30	18	20	20	23	36	41	40	43	22	21	30
AC-FT	2040	2030	1800	1900	1790	3950	3000	10040	4530	3130	2040	2110

CAL YR 1976 TOTAL 18251 MEAN 49.9 MAX 330 MIN 12 AC-FT 36200
WTR YR 1977 TOTAL 19340 MEAN 53.0 MAX 1130 MIN 18 AC-FT 38360

06799450 LOGAN CREEK AT PENDER, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-68, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM (COL. PER 100 ML) (31616)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)
OCT												
14...	1030	31	750	7.7	11.0	5	9.8	8.5	50	--	172	--
NOV												
24...	1000	42	786	7.7	.0	8	13.0	2.8	--	37	66	--
DEC												
13...	1415	33	749	8.0	.5	5	12.0	2.6	--	83	40	--
JAN												
04...	1515	63	830	8.5	.5	--	6.7	5.4	--	--	124	--
FEB												
15...	1630	28	691	7.5	.2	6	7.4	1.8	--	17	16	--
MAR												
08...	1645	136	570	7.7	1.5	85	8.6	8.6	--	1900	16700	--
APR												
18...	1615	46	755	8.4	21.5	10	10.4	4.3	--	123	200	--
MAY												
09...	1345	235	287	--	19.0	--	--	--	--	--	--	--
31...	1500	67	691	8.0	24.0	150	8.2	2.6	--	87430	3000	--
JUL												
13...	1600	37	727	7.7	32.0	30	7.4	8.1	--	--	--	--
AUG												
02...	1450	24	765	8.0	29.0	10	5.5	6.2	--	250	--	120
SEP												
16...	1015	30	765	8.2	16.5	20	9.8	3.5	--	1070	--	1160

DATE	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	DISSOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)
OCT											
14...	14	472	.64	39.5	.24	.01	.27	.28	.52	.18	.16
NOV											
24...	6.0	510	.70	58.7	1.3	.18	--	--	--	.33	--
DEC											
13...	5.8	--	.73	47.7	1.6	.22	.46	.68	2.3	.37	.34
JAN											
04...	12	553	.75	94.1	1.9	.39	.31	.70	2.6	.39	--
FEB											
15...	9.9	516	.70	39.0	1.3	.42	.04	.46	1.8	.37	--
MAR											
08...	18	--	.48	131	1.2	1.5	2.6	4.1	5.3	1.0	.53
APR											
18...	12	529	.72	65.7	.62	.07	.49	.56	1.2	.44	--
MAY											
09...	3.7	--	.26	121	1.8	.62	--	--	--	.11	.08
31...	6.6	--	.64	85.2	1.9	.12	1.4	1.5	3.4	.52	.11
JUL											
13...	23	472	.64	47.2	.00	.00	1.0	1.0	1.0	.31	--
AUG											
02...	10	484	.66	32.5	.37	.01	.59	.60	.97	.26	--
SEP											
16...	11	--	.68	40.3	1.2	.00	.41	.41	1.6	.33	.25

DATE	TIME	COLOR (PLATINUM-COBALT UNITS) (00080)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)
DEC											
13...	1415	4	--	400	87	120	25	23	.5	6.1	385
MAR											
08...	1645	70	--	250	44	70	18	22	.6	13	250
MAY											
09...	1345	90	590	130	15	40	7.6	7.1	.3	7.4	140
31...	1500	27	--	340	82	100	23	23	.5	12	320
SEP											
16...	1015	8	--	380	82	110	25	25	.6	6.9	360

06799450 LOGAN CREEK AT PENDER, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED FLUORIDE (F) (MG/L) (00950)	DISSOLVED SILICA (SIO2) (MG/L) (00955)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DISSOLVED AMMONIA NITROGEN (N) (MG/L) (00608)	DISSOLVED ORGANIC NITROGEN (N) (MG/L) (00607)	DISSOLVED KJEL. NITROGEN (N) (MG/L) (00623)	TOTAL ARSENIC (AS) (UG/L) (01002)
DEC											
13...	0	316	140	.3	25	535	--	--	--	--	--
MAR											
08...	0	210	78	.2	13	356	--	--	--	--	--
MAY											
09...	0	115	41	.5	7.4	191	1.5	.58	.42	1.0	12
31...	0	260	130	.4	18	471	--	--	--	--	--
SEP											
16...	0	300	170	.2	21	497	--	--	--	--	--

DATE	SUSPENDED ARSENIC (AS) (UG/L) (01001)	DISSOLVED ARSENIC (AS) (UG/L) (01000)	DISSOLVED BORON (B) (UG/L) (01020)	TOTAL CADMIUM (CD) (UG/L) (01027)	SUSPENDED CADMIUM (CD) (UG/L) (01026)	DISSOLVED CADMIUM (CD) (UG/L) (01025)	TOTAL CHROMIUM (CR) (UG/L) (01034)	SUSPENDED CHROMIUM (CR) (UG/L) (01031)	DISSOLVED CHROMIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	SUSPENDED COBALT (CO) (UG/L) (01036)
DEC											
13...	--	--	70	--	--	--	--	--	--	--	--
MAR											
08...	--	7	100	--	--	8	--	--	0	--	--
MAY											
09...	10	2	50	20	19	1	150	140	10	200	200
31...	--	--	80	--	--	--	--	--	--	--	--
SEP											
16...	--	3	80	--	--	2	--	--	0	--	--

DATE	DISSOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	SUSPENDED COPPER (CU) (UG/L) (01041)	DISSOLVED COPPER (CU) (UG/L) (01040)	DISSOLVED IRON (FE) (UG/L) (01046)	TOTAL IRON (FE) (UG/L) (01045)	TOTAL LEAD (PB) (UG/L) (01051)	SUSPENDED LEAD (PB) (UG/L) (01050)	DISSOLVED LEAD (PB) (UG/L) (01049)	TOTAL MANGANESE (MN) (UG/L) (01055)	SUSPENDED MANGANESE (MN) (UG/L) (01054)
DEC											
13...	--	--	--	--	10	--	--	--	--	--	--
MAR											
08...	--	--	--	24	100	--	--	--	51	--	--
MAY											
09...	0	280	280	4	40	220000	300	300	3	14000	14000
31...	--	--	--	--	20	--	--	--	--	--	--
SEP											
16...	--	--	--	2	40	--	--	--	10	--	--

DATE	DISSOLVED MANGANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUSPENDED MERCURY (HG) (UG/L) (71895)	DISSOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELENIUM (SE) (UG/L) (01147)	SUSPENDED SELENIUM (SE) (UG/L) (01146)	DISSOLVED SELENIUM (SE) (UG/L) (01145)	DISSOLVED SILVER (AG) (UG/L) (01075)	TOTAL ZINC (ZN) (UG/L) (01092)	SUSPENDED ZINC (ZN) (UG/L) (01091)	DISSOLVED ZINC (ZN) (UG/L) (01090)
DEC											
13...	270	--	--	--	--	--	--	--	--	--	--
MAR											
08...	470	.1	--	.0	--	--	8	0	--	--	60
MAY											
09...	250	.6	.6	.0	16	9	7	0	810	780	30
31...	60	--	--	--	--	--	--	--	--	--	--
SEP											
16...	90	.0	.0	.0	--	--	16	0	--	--	10

DATE	TIME	DISSOLVED PCB (UG/L) (39517)	DISSOLVED ALDRIN (UG/L) (39331)	DISSOLVED CHLORDANE (UG/L) (39352)	DISSOLVED DDD (UG/L) (39361)	DISSOLVED DDE (UG/L) (39366)	DISSOLVED DDT (UG/L) (39371)	DISSOLVED DIAZINON (UG/L) (39572)	DISSOLVED DIELDRIN (UG/L) (39381)	DISSOLVED ENDRIN (UG/L) (39391)
MAY										
09...	1345	.0	.00	.0	.00	.00	.00	.01	.01	.00

DATE	DISSOLVED HEPTACHLOR (UG/L) (39411)	DISSOLVED HEPTACHLOR EPOXIDE (UG/L) (39421)	DISSOLVED LINDANE (UG/L) (39341)	DISSOLVED MALATHION (UG/L) (39532)	DISSOLVED METHYL PARATHION (UG/L) (39602)	DISSOLVED PARATHION (UG/L) (39542)	DISSOLVED TOXAPHENE (UG/L) (39401)	DISSOLVED 2,4-D (UG/L) (39732)	DISSOLVED 2,4,5-T (UG/L) (39742)	DISSOLVED SILVEX (UG/L) (39762)
MAY										
09...	.00	.00	.01	.00	.00	.00	0	.48	.02	.00

06799450 LOGAN CREEK AT PENDER, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SUS-PENDED SEDI-MENT (MG/L) (80154)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)
APR							
18...	1545	46	21.5	58	7.2	--	--
MAY							
09...	1345	235	20.0	12800	8120	58	72
31...	1500	67	25.0	423	76	--	--
JUL							
13...	1600	37	32.0	134	13	--	--

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM (70346)
APR						
18...	--	69	--	--	--	--
MAY						
09...	95	--	--	--	--	--
31...	--	82	97	99	100	--
JUL						
13...	--	72	83	88	98	100

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)
APR										
18...	1545	46	5	--	0	10	63	95	100	--
MAY										
09...	1345	235	3	1	4	16	72	96	99	100
JUL										
13...	1600	37	10	--	0	9	63	95	100	--

06799500 LOGAN CREEK NEAR UEHLING, NE

LOCATION.--Lat 41°42'50", long 96°31'15", on south line of SE1/4SE1/4 sec.9, T.20 N., R.8 E., Dodge County, Hydrologic Unit 10220004, near right bank on downstream side of bridge on county road, 2 mi (3 km) southeast of Uehling and 8 mi (13 km) upstream from mouth.

DRAINAGE AREA.--1,030 mi² (2,670 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1941 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,208.73 ft (368.421 m) above mean sea level. See WSP 1918 for history of changes prior to July 15, 1963.

REMARKS.--Records good except those for winter period, which are poor. Periodic temperature and conductance measurements are published in tables for water quality at miscellaneous sites.

AVERAGE DISCHARGE.--36 years, 177 ft³/s (5.013 m³/s), 128,200 acre-ft/yr (0.158 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,200 ft³/s (714 m³/s) Feb. 20, 1971, gage height, 20.15 ft (6.142 m), from floodmark; maximum gage height, 20.15 ft (6.142 m), Mar. 27, 1962, present datum, Feb. 20, 1971; minimum daily discharge, 6.1 ft³/s (0.17 m³/s) July 26, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 5, 1940, reached a stage of 20.6 ft (6.28 m), present datum, from floodmarks, discharge, 22,200 ft³/s (629 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,650 ft³/s (103 m³/s) May 9 at 0245, 9.37 ft (2.856 m), no other peak above base of 1,500 ft³/s (42.5 m³/s); minimum daily, 15 ft³/s (0.42 m³/s) July 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	44	25	29	43	86	55	54	108	182	19	79
2	42	44	24	33	50	96	67	54	92	145	23	58
3	42	44	30	38	56	100	74	56	86	80	22	75
4	44	44	28	36	54	88	75	59	84	65	25	89
5	42	46	25	35	52	80	70	65	79	55	40	117
6	42	48	23	34	49	78	63	62	79	50	45	74
7	41	48	21	33	45	80	61	56	60	44	39	60
8	42	48	20	33	52	83	58	74	60	94	38	53
9	42	46	30	29	60	103	55	1520	65	60	49	58
10	43	48	28	30	70	119	55	289	66	40	46	56
11	42	47	25	31	68	108	53	117	69	44	76	56
12	43	45	33	33	68	112	60	86	73	43	48	56
13	42	47	39	35	66	97	87	75	63	36	38	94
14	42	45	47	38	62	83	74	67	68	29	34	64
15	40	40	45	35	58	70	65	64	68	34	82	53
16	40	35	47	30	60	63	63	62	73	33	148	49
17	40	38	48	32	64	57	64	59	186	28	58	49
18	40	45	52	35	70	55	63	58	264	23	68	51
19	42	40	47	42	68	54	77	59	282	17	51	52
20	43	35	43	40	76	54	63	58	117	15	44	45
21	44	31	34	41	100	55	89	262	91	93	73	44
22	45	23	37	43	96	54	73	488	85	108	57	40
23	45	27	36	50	94	51	73	612	82	157	59	44
24	45	35	39	45	86	49	65	218	226	94	51	41
25	45	45	39	39	90	46	59	129	101	66	47	38
26	44	35	40	44	100	47	57	250	94	50	44	37
27	44	27	45	50	94	48	57	282	76	41	47	37
28	45	21	40	35	90	52	56	761	98	31	46	39
29	45	18	36	37	---	65	54	454	75	26	45	40
30	45	21	31	40	---	62	54	189	69	22	43	42
31	44	---	25	37	---	59	---	144	---	22	397	---
TOTAL	1327	1160	1082	1142	1941	2254	1939	6783	3039	1827	1902	1690
MEAN	42.8	38.7	34.9	36.8	69.3	72.7	64.6	219	101	58.9	61.4	56.3
MAX	45	48	52	50	100	119	89	1520	264	182	397	117
MIN	40	18	20	29	43	46	53	54	60	15	19	37
AC-FT	2630	2300	2150	2270	3850	4470	3850	13450	6030	3620	3770	3350

CAL YR 1976 TOTAL 22912.9 MEAN 62.6 MAX 400 MIN 6.1 AC-FT 45450
WTR YR 1977 TOTAL 26086.0 MEAN 71.5 MAX 1520 MIN 15 AC-FT 51740

06799500 LOGAN CREEK NEAR UEHLING, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-1971, 1974-1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE (DEG C) (00010)
OCT , 1976				
12...	1200	43	710	16.5
DEC				
13...	1445	39	838	.5
JAN , 1977				
04...	1145	36	808	.5
FEB				
15...	1130	57	697	.5
MAR				
08...	1055	80	660	1.5
APR , 1977				
18...	1135	63	675	21.0
JUN				
07...	1530	63	650	26.5
JUL				
13...	1155	38	596	27.5
AUG				
02...	1120	22	690	24.0
SEP				
14...	1115	66	598	18.0

06800000 MAPLE CREEK NEAR NICKERSON, NE

LOCATION.--Lat 41°32'44", long 96°30'09", in NE1/4SW1/4 sec.10, T.18 N., R.8 E., Dodge County, Hydrologic Unit 10220003, on right bank 120 ft (37 m) upstream from bridge on U.S. Highways 77 and 275, 1.5 mi (2.4 km) northwest of Nickerson, and 4 mi (6 km) upstream from mouth.

DRAINAGE AREA.--450 mi² (1,170 km²), approximately.

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1630: 1957-58.

GAGE.--Water-stage recorder. Datum of gage is 1,194.56 ft (364.102 m) above mean sea level. Prior to July 28, 1960, nonrecording gage at site 120 ft (37 m) downstream at present datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--26 years, 57.4 ft³/s (1.626 m³/s), 41,590 acre-ft/yr (51.3 hm³/yr); median of yearly mean discharges, 50 ft³/s (1.416 m³/s), 36,200 acre-ft/yr (44.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft³/s (306 m³/s) June 21, 1960, gage height, 14.67 ft (4.471 m); maximum gage height, 16.10 ft (4.907 m) Feb. 19, 1971, from floodmark, backwater from ice; minimum daily discharge, 0.1 ft³/s (0.003 m³/s) Jan. 15, 16, 1956, Aug. 1, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since 1944, 16.28 ft (4.962 m) June 11, 1944, from floodmarks, discharge, 35,000 ft³/s (991 m³/s), from indirect measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s (22.7 m³/s) and maximum (*):

Date	Time	Discharge (ft/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 22	0800	1720	48.7	10.53	3.210	June 18	0100	1030	29.2	8.95	2.728
May 28	0100	*3330	94.3	a13.96	4.255						

a From floodmarks.

Minimum daily discharge, 0.10 ft³/s (0.003 m³/s), Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.90	.68	.60	.80	.90	.60	1.3	1.3	53	3.9	.10	352
2	.82	.75	.60	.90	.90	.70	1.9	1.3	26	3.2	.16	79
3	.82	.68	.70	.90	.90	.80	1.2	1.9	17	2.6	.22	38
4	1.7	.75	.60	.90	.80	.70	3.0	1.9	12	1.4	.29	118
5	.68	.90	.60	.90	.80	.70	11	20	9.6	.90	.40	30
6	.68	1.0	.60	.90	.80	.70	3.3	66	7.6	.79	.48	9.0
7	.75	.82	.60	.90	.70	.80	.75	14	6.4	.68	.38	4.0
8	.75	1.0	.60	.90	.80	.80	.62	21	5.2	.68	.29	3.4
9	.90	1.0	.60	.90	.80	.80	.56	117	4.5	.68	256	2.8
10	.56	1.2	.60	.90	.80	.80	.51	36	4.5	.68	243	2.5
11	.75	1.0	.60	.90	.80	1.5	.47	9.6	3.9	1.9	56	2.1
12	.75	.90	.60	.90	.70	3.3	.56	3.5	5.6	1.2	18	1.9
13	.68	.80	.70	.80	.70	7.6	24	1.2	18	1.0	7.7	1.8
14	.75	1.0	.70	.80	.70	14	63	1.0	16	.90	2.4	1.6
15	.68	1.2	.70	.80	.60	4.4	26	1.2	8.6	1.0	2.6	.90
16	.56	1.1	.70	.80	.60	1.5	25	1.2	5.6	.90	125	1.9
17	.62	1.5	.70	.90	.60	1.7	7.6	17	265	.90	150	1.2
18	.90	1.3	.80	.90	.70	1.7	3.7	180	525	.90	26	.79
19	1.2	.90	.80	.90	.60	1.7	3.0	38	85	.48	9.1	.79
20	1.0	1.7	.70	.90	.60	1.5	2.4	21	38	.29	2.1	5.3
21	1.0	1.1	.80	.90	.70	1.3	1.9	234	26	.90	42	1.0
22	.90	1.0	.80	.90	.80	1.5	25	1300	23	.68	112	.58
23	1.0	1.3	.80	1.0	.70	1.3	10	217	19	.58	23	1.2
24	1.2	1.7	.80	1.0	.70	1.5	3.7	45	19	1.0	8.2	.58
25	1.0	1.9	.90	.90	.70	1.5	1.5	19	19	233	3.2	1.0
26	.82	1.6	.90	.90	.70	1.3	1.0	23	13	29	2.4	3.0
27	.82	1.3	1.0	.90	.70	1.2	1.0	1790	11	6.4	2.0	1.1
28	.75	1.0	1.0	.90	.70	2.7	1.2	1620	8.6	.58	1.7	.96
29	.68	.60	.90	.90	---	1.5	1.3	113	6.0	.48	1.4	.96
30	.75	.60	.90	.90	---	1.5	1.2	90	4.9	.38	1.2	8.0
31	.68	---	.80	.90	---	1.2	---	317	---	.16	86	---
TOTAL	26.05	32.28	22.70	27.60	20.50	62.80	227.67	6322.1	1266.0	298.16	1183.02	670.36
MEAN	.84	1.08	.73	.89	.73	2.03	7.59	204	42.2	9.62	38.2	22.3
MAX	1.7	1.9	1.0	1.0	.90	14	63	1790	525	233	256	352
MIN	.56	.60	.60	.80	.60	.60	.47	1.0	3.9	.16	.10	.58
AC-FT	52	64	45	55	41	125	452	12540	2510	591	2350	1330

CAL YR 1976 TOTAL 4633.85 MEAN 12.7 MAX 593 MIN .35 AC-FT 9190
WTR YR 1977 TOTAL 10160.02 MEAN 27.8 MAX 1790 MIN .10 AC-FT 20150

06800500 ELKHORN RIVER AT WATERLOO, NE

LOCATION.--Lat 41°17'25", long 96°17'05", in SE1/4 sec.3, T.15 N., R.10 E., Douglas County, Hydrologic Unit 10220003, on right bank 100 ft (30 m) upstream from bridge at north edge of Waterloo and 3.5 mi (5.6 km) downstream from Rawhide Creek.

DRAINAGE AREA.--6,900 mi² (17,900 km²), approximately, of which about 5,870 mi² (15,200 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1899 to November 1903, May 1911 to September 1915, August 1928 to current year. Published as "at Arlington" 1899-1903, July 1913 to September 1915. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1914(M), 1915, 1936, 1943(M). WDR NE-74: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,106.73 ft (337.331 m) above mean sea level. See WSP 1918 for history of changes prior to Oct. 1, 1960.

REMARKS.--Records good except those for winter period, which are poor. Some small diversions above station for irrigation.

AVERAGE DISCHARGE.--57 years, 1,121 ft³/s (31.75 m³/s), 812,200 acre-ft/yr (1.00 km³/yr); median of yearly mean discharges, 1,000 ft³/s (28.32 m³/s), 724,500 acre-ft/yr (0.893 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 100,000 ft³/s (2,830 m³/s) June 12, 1944, gage height, 16.6 ft (5.06 m) from floodmark in gage well, site and datum then in use, from rating curve extended above 22,000 ft³/s (623 m³/s) on basis of current-meter measurement of peak flow in main channel and velocity-area studies of overflow section; minimum observed, 50 ft³/s (1.42 m³/s) Nov. 12, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Stage and discharge of the flood of June 12, 1944, are the greatest known since at least 1880.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,200 ft³/s (261 m³/s) May 28 at 0900, gage height, 7.42 ft (2.262 m), no other peak above base of 6,000 ft³/s (170 m³/s); minimum daily, 145 ft³/s (4.11 m³/s) Jan. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	220	292	180	190	205	851	900	742	1890	1550	303	2920
2	225	288	200	170	220	884	960	682	1560	1520	292	2160
3	216	292	220	170	230	830	1100	640	1300	1190	276	1120
4	209	288	220	190	230	760	1240	570	1020	916	267	1020
5	216	299	220	195	215	676	1270	616	960	823	281	1070
6	219	306	220	200	205	700	1210	646	916	768	306	742
7	212	310	200	205	205	816	1080	712	851	658	422	550
8	216	310	180	200	240	837	916	839	802	598	338	480
9	216	310	200	190	250	960	851	2800	742	506	571	445
10	216	318	220	190	260	1070	823	1760	682	540	913	426
11	209	326	205	190	260	900	760	893	640	550	751	430
12	212	296	250	160	270	924	728	640	628	560	799	410
13	216	216	250	160	280	989	774	485	730	565	506	390
14	219	198	250	160	310	989	1050	398	712	505	480	426
15	222	216	250	160	300	924	972	358	658	520	428	406
16	222	256	270	145	330	872	837	350	652	510	1510	394
17	225	267	290	155	370	858	872	358	1020	592	1960	390
18	228	303	360	160	420	851	940	390	3070	565	830	394
19	242	356	360	160	480	806	1060	430	3400	650	555	382
20	252	366	280	175	520	872	1250	350	1780	390	465	398
21	263	338	240	175	560	858	1040	682	1230	390	460	398
22	270	306	250	170	600	872	1130	4120	1020	563	520	402
23	274	281	270	175	680	858	1370	4560	900	1360	540	440
24	281	274	280	180	780	781	1920	4170	2400	1160	440	445
25	281	270	290	180	1150	720	1400	2280	3100	1120	394	430
26	281	268	310	195	1020	700	1350	2030	2060	1030	394	402
27	281	240	320	185	900	706	1130	5530	1570	580	394	382
28	285	200	310	170	893	760	980	7990	2260	480	394	366
29	287	180	300	210	---	806	870	5710	2930	414	376	366
30	287	160	230	210	---	872	788	3660	1650	366	398	390
31	296	---	190	210	---	865	---	2800	---	330	1070	---
TOTAL	7506	8330	7815	5585	12383	26275	31515	58251	43133	22089	17785	18956
MEAN	242	278	252	180	442	848	1051	1879	1438	713	574	632
MAX	296	366	360	210	1150	1070	1920	7990	3400	1550	1960	2920
MIN	209	160	180	145	205	676	728	350	628	330	267	366
AC-FT	14890	16520	15500	11080	24560	52120	62510	115500	85550	43810	35280	37600

CAL YR 1976 TOTAL 208193 MEAN 569 MAX 4590 MIN 69 AC-FT 413000
WTR YR 1977 TOTAL 259619 MEAN 711 MAX 7990 MIN 145 AC-FT 515000

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM (COL. PER 100 ML) (31616)
OCT 15...	1300	222	586	8.5	11.5	5	15	11.2	9.0	767
NOV 09...	1100	316	591	7.9	12.0	6	15	12.8	3.6	--
DEC 14...	1400	251	708	7.5	.5	7	7	9.6	4.0	--
JAN 11...	1130	184	695	8.0	.5	7	--	9.3	12	--
FEB 07...	1200	304	600	7.6	.0	--	6	--	--	--
08...	1200	233	668	7.4	.0	7	6	10.8	5.8	--
MAR 10...	0945	1130	413	7.6	7.5	25	65	9.7	6.9	--
APR 11...	1230	748	392	8.6	18.0	45	35	9.9	10	--
MAY 10...	1300	1670	318	7.5	19.0	110	3700	6.9	8.0	--
23...	1100	4610	330	7.4	23.0	75	2700	--	5.2	--
31...	1320	2990	318	7.3	22.0	110	800	7.0	2.4	--
JUN 08...	1200	826	427	7.9	25.0	45	65	9.0	12	--
JUL 14...	1030	508	439	8.5	25.5	24	75	7.4	7.6	--
AUG 08...	1100	332	453	8.3	26.5	43	85	8.6	8.2	--
17...	1230	1920	250	7.6	24.0	140	1250	6.0	9.7	--
SEP 19...	1100	808	485	8.3	17.5	25	65	7.8	7.6	--

DATE	FECAL COLIFORM, .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)
OCT 15...	--	226	--	250	18	69	15	35	1.0	8.5
NOV 09...	200	1850	--	240	21	68	16	32	.9	7.8
DEC 14...	3730	248	--	290	33	87	18	36	.9	8.5
JAN 11...	13600	680	--	300	25	89	18	37	.9	8.8
FEB 07...	--	--	--	260	22	76	17	43	1.2	8.3
08...	6200	1200	--	260	21	78	17	35	.9	6.0
MAR 10...	10000	980	--	160	2	49	9.2	17	.6	6.7
APR 11...	1400	1000	--	200	13	56	12	22	.7	9.2
MAY 10...	107000	190000	--	120	0	37	7.6	9.8	.8	8.9
23...	180000	175000	--	130	0	39	8.1	11	.8	10
31...	18000	14000	--	130	9	40	7.7	12	.5	10
JUN 08...	2400	580	--	190	6	58	10	19	.6	9.3
JUL 14...	2700	--	660	160	0	47	10	19	.7	7.5
AUG 08...	1200	--	1840	180	1	56	10	25	.8	9.2
17...	--	--	K135000	95	0	29	5.6	10	.8	10
SEP 19...	2800	--	680	210	14	63	13	27	.8	9.6

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)
OCT										
19...	260	0	217	45	30	.4	21	372	.51	225
NOV										
09...	262	0	215	57	27	.4	23	361	.49	308
DEC										
14...	315	0	258	66	26	.5	36	433	.59	205
JAN										
11...	331	0	271	74	29	.4	39	462	.63	230
FEB										
07...	290	0	240	69	20	.4	37	398	.50	340
08...	297	0	244	68	32	.4	32	417	.57	262
MAR										
10...	193	0	158	51	11	.3	22	242	.33	738
APR										
11...	220	2	180	60	19	.5	25	293	.40	569
MAY										
10...	160	0	130	22	7.0	.5	10	182	.25	821
25...	160	0	130	24	8.3	.5	11	202	.27	2510
31...	150	0	120	22	9.0	.5	14	198	.27	1600
JUN										
08...	220	0	180	55	19	.4	27	277	.38	618
JUL										
14...	210	0	170	50	10	.3	26	253	.34	347
AUG										
08...	220	0	180	53	22	.5	21	285	.39	255
17...	130	0	110	15	7.5	.4	12	159	.22	824
SEP										
19...	240	0	200	50	16	.4	17	303	.41	331

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO-GEN (N) (MG/L) (00605)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L) (00625)	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOL-VED PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)
OCT										
19...	.05	.04	1.3	1.3	1.3	.67	.55	90	20	20
NOV										
09...	1.0	.01	.99	1.0	2.0	.58	.47	80	30	30
DEC										
14...	1.0	1.0	.20	1.2	3.0	.81	.75	90	10	60
JAN										
11...	2.1	.09	1.9	2.0	4.1	.77	.70	90	20	110
FEB										
07...	1.4	1.4	.50	1.9	3.3	.63	.60	--	--	--
08...	1.8	1.7	.00	1.7	3.5	.62	.75	80	10	80
MAR										
10...	.02	.94	.98	1.9	2.3	.48	.22	50	80	20
APR										
11...	.09	.04	1.1	1.1	1.2	.44	.36	70	40	50
MAY										
10...	1.5	.96	29	30	32	5.0	.15	50	70	20
25...	1.8	.51	28	29	31	2.5	.16	60	60	8
31...	1.7	.13	2.0	2.0	4.0	.83	.25	1400	140	30
JUN										
08...	.01	.05	2.0	2.0	2.0	.70	.63	70	60	0
JUL										
14...	.00	.01	.95	.96	.96	.63	.33	70	20	0
AUG										
08...	.26	.04	1.8	1.9	2.2	.85	.40	80	60	10
17...	1.8	.27	11	11	13	6.0	.27	70	90	0
SEP										
19...	.49	.01	1.3	1.3	2.0	.65	.45	70	80	10

DATE	TIME	CHEM-ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L) (00608)	DIS-SOLVED ORGANIC NITRO-GEN (N) (MG/L) (00607)	SUS-PENDED KJEL. NITRO-GEN (N) (MG/L) (00620)	DIS-SOLVED KJEL. NITRO-GEN (N) (MG/L) (00623)	TOTAL ARSENIC (AS) (UG/L) (01002)	SUS-PENDED ARSENIC (AS) (UG/L) (01001)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)
DEC										
14...	1400	--	--	--	--	--	--	--	--	6
FEB										
07...	1200	--	--	--	--	.90	1.4	--	--	--
MAR										
10...	0905	--	--	--	--	--	--	--	--	3
MAY										
25...	1100	800	1.3	.44	.76	28	1.2	8	6	2
31...	1320	150	1.5	.01	.70	2.2	.71	10	0	10
AUG										
17...	1230	200	1.1	.27	.43	10	.70	66	64	2

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL CADMIUM (CD) (UG/L) (01027)	SUSPENDED CADMIUM (CD) (UG/L) (01026)	DISSOLVED CADMIUM (CD) (UG/L) (01025)	TOTAL CHROMIUM (CR) (UG/L) (01034)	SUSPENDED CHROMIUM (CR) (UG/L) (01031)	DISSOLVED CHROMIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	SUSPENDED COBALT (CO) (UG/L) (01036)	DISSOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)
DEC 14...	--	--	0	--	--	0	--	--	--	--
FEB 07...	--	--	--	--	--	--	--	--	--	--
MAR 10...	--	--	2	--	--	0	--	--	--	--
MAY 23...	10	8	2	140	--	0	100	100	0	200
31...	<10	<2	8	10	10	0	<50	<50	0	30
AUG 17...	10	5	5	60	48	12	50	49	1	70

DATE	SUSPENDED COPPER (CU) (UG/L) (01041)	DISSOLVED COPPER (CU) (UG/L) (01040)	TOTAL IRON (FE) (UG/L) (01045)	TOTAL LEAD (PB) (UG/L) (01051)	SUSPENDED LEAD (PB) (UG/L) (01050)	DISSOLVED LEAD (PB) (UG/L) (01049)	TOTAL MANGANESE (MN) (UG/L) (01055)	SUSPENDED MANGANESE (MN) (UG/L) (01054)	TOTAL MERCURY (HG) (UG/L) (71900)
DEC 14...	--	2	--	--	--	4	--	--	.4
FEB 07...	--	--	--	--	--	--	--	--	--
MAR 10...	--	1	--	--	--	11	--	--	.1
MAY 23...	200	3	240000	300	290	9	9200	9200	.1
31...	25	5	24000	<100	<74	26	1200	1200	.1
AUG 17...	65	5	36000	100	43	57	3500	3500	.2

DATE	SUSPENDED MERCURY (HG) (UG/L) (71895)	DISSOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELENIUM (SE) (UG/L) (01147)	SUSPENDED SELENIUM (SE) (UG/L) (01146)	DISSOLVED SELENIUM (SE) (UG/L) (01145)	DISSOLVED SILVER (AG) (UG/L) (01075)	TOTAL ZINC (ZN) (UG/L) (01092)	SUSPENDED ZINC (ZN) (UG/L) (01091)	DISSOLVED ZINC (ZN) (UG/L) (01090)
DEC 14...	.0	.4	--	--	4	0	--	--	10
FEB 07...	--	--	--	--	--	--	--	--	--
MAR 10...	.1	.0	--	--	3	0	--	--	10
MAY 23...	.1	.0	10	8	2	0	650	640	10
31...	.1	.0	5	1	4	0	120	70	50
AUG 17...	.2	.0	7	7	0	0	220	210	10

DATE	TIME	DISSOLVED PCB (UG/L) (39517)	DISSOLVED ALDRIN (UG/L) (39331)	DISSOLVED CHLORDANE (UG/L) (39352)	DISSOLVED DDD (UG/L) (39361)	DISSOLVED DDE (UG/L) (39366)	DISSOLVED DDT (UG/L) (39371)	DISSOLVED DIAZINON (UG/L) (39572)	DISSOLVED DIELDRIN (UG/L) (39381)	DISSOLVED ENDRIN (UG/L) (39391)
APR 22...	1200	.0	.00	.0	.00	.00	.00	.01	.00	.00
MAY 23...	1100	.0	.00	.0	.00	.00	.00	.29	.01	.00
31...	1320	.0	.00	.0	.00	.00	.00	.07	.01	.00
AUG 17...	1230	.0	.00	.0	.00	.00	.00	.03	.01	.00

DATE	DISSOLVED HEPTACHLOR (UG/L) (39411)	DISSOLVED HEPTACHLOR EPOXIDE (UG/L) (39421)	DISSOLVED LINDANE (UG/L) (39341)	DISSOLVED MALATHION (UG/L) (39532)	DISSOLVED METHYL PARATHION (UG/L) (39602)	DISSOLVED PARATHION (UG/L) (39542)	DISSOLVED TOXAPHENE (UG/L) (39401)	DISSOLVED 2,4-D (UG/L) (39732)	DISSOLVED 2,4,5-T (UG/L) (39742)	DISSOLVED SILVEX (UG/L) (39762)
APR 22...	.00	.00	.00	.00	.00	.00	0	.76	.08	.00
MAY 23...	.00	.00	.01	.00	.00	.00	0	.42	.03	.00
31...	00	.00	.00	.00	.00	.00	0	--	--	--
AUG 17...	.00	.00	.00	.00	.00	.00	0	.06	.01	.00

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDED SEDI- MENT (MG/L) (80154)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)
APR												
22...	1330	1120	14.0	245	741	--	--	--	89	93	99	100
MAY												
23...	1100	4610	23.0	10200	127000	50	62	82	97	98	100	--
31...	1320	2990	22.0	3540	28600	41	47	62	89	93	98	100
AUG												
17...	1230	1920	24.0	5060	26200	48	62	83	99	99	100	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	NUMBER OF SAM- PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
APR												
22...	1330	1120	4	0	7	50	82	91	97	99	100	--
MAY												
23...	1100	4610	3	0	2	33	74	89	96	98	99	100
31...	1320	2990	2	2	13	70	100	--	--	--	--	--
AUG												
17...	1230	1920	3	0	6	36	73	92	96	98	99	100

06803000 SALT CREEK AT ROCA, NE

LOCATION.--Lat 40°39'29", long 96°39'55", in NW1/4SW1/4 sec.17, T.8 N., R.7 E., Lancaster County, Hydrologic Unit 10200203, on left bank 15 ft (5 m) downstream from highway bridge at west edge of Roca.

DRAINAGE AREA.--167 mi² (433 km²).

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.-- WDR NE-71: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,192.50 ft (363.474 m) above mean sea level, Kansas City supplementary adjustment of 1943. Prior to May 16, 1956, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period and periods of backwater from beaver dams, which are poor. Flood flow affected by several detention dams.

AVERAGE DISCHARGE.--26 years, 40.1 ft³/s (1.136 m³/s), 29,050 acre-ft/yr (35.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,700 ft³/s (473 m³/s) July 10, 1958, gage height, 22.70 ft (6.919 m); minimum daily, 0.2 ft³/s (0.006 m³/s) July 23, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 8, 1950, reached a stage of 26.0 ft (7.92 m), from floodmark established by Corps of Engineers, discharge, 67,000 ft³/s (1,900 m³/s), but may have been exceeded by flood of July 5, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 710 ft³/s (20.1 m³/s) Sept. 17, gage height, 9.76 ft (2.975 m), no peak above base of 850 ft³/s (24.1 m³/s); minimum daily, 0.58 ft³/s (0.016 m³/s) July 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	6.2	4.6	7.1	8.3	10	11	11	7.3	.58	4.8	49
2	5.2	6.4	4.4	7.1	8.3	9.9	12	11	7.1	.71	4.0	50
3	4.9	6.6	4.0	7.3	8.4	12	11	11	7.2	.78	5.1	167
4	4.3	6.3	4.6	7.3	8.4	13	14	12	7.4	1.8	6.9	105
5	4.4	6.0	4.3	7.4	8.6	14	13	11	7.0	3.2	12	39
6	4.1	6.0	4.1	7.5	8.6	13	10	8.9	6.6	2.8	13	11
7	4.0	6.0	3.9	7.4	8.6	13	8.5	9.1	6.9	2.2	13	6.0
8	5.9	5.8	3.6	7.5	8.8	12	7.9	8.4	7.4	2.3	16	6.2
9	5.5	5.8	3.5	7.4	8.9	11	7.1	8.6	6.8	4.1	21	13
10	6.4	5.6	4.4	7.5	9.1	10	7.2	8.2	6.8	3.9	19	12
11	6.1	5.0	3.9	7.4	9.3	11	7.5	9.1	5.9	18	12	12
12	6.3	4.7	4.5	7.5	9.5	13	7.4	8.2	6.0	24	12	81
13	5.6	4.8	4.8	7.5	9.7	12	8.9	8.2	7.1	8.7	11	86
14	5.4	5.0	5.1	7.5	10	10	9.5	8.8	7.3	7.0	18	20
15	6.2	5.4	5.2	7.6	10	10	9.7	9.7	6.5	6.0	23	11
16	5.4	6.0	5.4	7.4	10	9.2	10	12	5.4	6.1	108	7.4
17	6.2	7.0	5.4	7.5	11	9.2	10	9.5	5.7	5.9	52	472
18	6.6	7.2	5.7	7.4	11	8.7	11	10	5.9	5.7	10	102
19	6.3	6.9	5.4	7.5	11	9.6	11	12	5.9	3.8	8.9	19
20	6.2	6.7	4.4	7.5	11	13	12	15	5.5	3.5	22	9.7
21	6.0	6.3	4.5	7.5	12	12	13	33	7.2	3.7	127	7.9
22	6.0	6.0	4.9	7.6	12	12	12	42	36	4.2	8.9	7.6
23	6.3	6.2	5.2	7.6	12	11	11	14	11	4.5	8.1	19
24	6.1	6.0	5.5	7.9	12	10	11	8.5	4.8	5.1	16	58
25	5.9	6.1	5.8	7.9	13	10	9.9	7.1	3.8	4.5	21	19
26	5.8	5.6	6.0	8.0	13	9.9	9.6	6.8	2.4	3.9	29	9.2
27	4.7	5.0	6.5	8.1	13	10	9.5	21	1.9	2.3	35	8.2
28	5.2	4.5	6.8	8.1	12	12	10	44	1.5	3.2	37	8.8
29	5.7	4.4	7.0	8.1	---	20	9.9	16	.86	6.2	46	12
30	6.1	4.7	7.1	8.3	---	15	10	8.3	.68	5.9	49	13
31	6.1	---	7.0	8.3	---	11	---	7.6	---	4.5	50	---
TOTAL	174.7	174.2	158.3	235.7	287.5	356.5	304.6	410.0	201.84	159.07	818.7	1449.8
MEAN	5.64	5.81	5.11	7.60	10.3	11.5	10.2	13.2	6.73	5.13	26.4	48.3
MAX	6.6	7.2	7.1	8.3	13	20	14	44	36	24	127	472
MIN	4.1	4.4	3.5	7.1	8.3	8.7	7.1	6.8	.68	.58	4.0	6.2
AC-FT	347	346	314	468	570	707	604	813	400	316	1620	2880

CAL YR 1976 TOTAL 5978.60 MEAN 16.3 MAX 395 MIN 3.1 AC-FT 11860
WTR YR 1977 TOTAL 4730.91 MEAN 13.0 MAX 472 MIN .58 AC-FT 9380

NOTE.--Stage-discharge relation affected by backwater from ice or beaver dams and ice Oct. 1 to Mar. 7, July 22 to Aug. 16, Sept. 28-30.

06803080 SALT CREEK ABOVE BEAL SLOUGH, AT LINCOLN, NE

LOCATION.--Lat 40°46'13", long 96°43'05", in SW1/4SW1/4 sec.2, T.9 N., R.6 E., Lancaster County, Hydrologic Unit 10200203, at county road bridge 0.9 miles west of U.S. Highway 77 and of northeast corner of State Penitentiary at Lincoln.

DRAINAGE AREA.--221 sq mi.

PERIOD OF RECORD.--Water year 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	DISSOLVED OXYGEN (MG/L) (00300)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM (COL. PER 100 ML) (31616)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)
OCT											
21...	0935	8.3	2000	7.7	4.0	10	11.5	75	2.7	137	--
NOV											
10...	1110	10	2140	6.8	3.5	--	12.4	36	2.6	--	21
DEC											
22...	1015	7.1	1600	7.8	.0	6.0	13.1	41	2.0	--	3
JAN											
20...	1000	6.9	2020	7.9	.5	5.0	9.6	9	4.4	--	100
FEB											
15...	1015	12	1360	7.8	.0	9.0	11.8	25	2.2	--	3
MAR											
03...	1100	13	953	7.4	1.0	15	11.7	5	2.4	--	77
APR											
13...	1300	10	1320	8.3	17.5	50	12.6	43	10	--	136
MAY											
03...	1415	12	1500	7.8	22.0	40	8.9	26	6.1	--	250
JUN											
16...	1015	8.5	1580	8.1	24.0	40	7.6	37	3.3	--	1670
JUL											
06...	1415	2.5	2500	8.4	30.0	20	12.1	48	10	--	137
AUG											
23...	1230	16	555	7.8	22.5	380	7.2	68	5.0	--	3600
SEP											
06...	1230	30	695	7.8	21.0	55	7.1	75	6.4	--	7330

DATE	STREPTOCOCCI (COLONIES PER 100 ML) (31679)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	TOTAL CALCIUM (CA) (MG/L) (00916)	TOTAL MAGNESIUM (MG) (MG/L) (00927)	TOTAL SODIUM (NA) (MG/L) (00929)	TOTAL POTASSIUM (K) (MG/L) (00937)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)
OCT											
21...	310	--	110	23	280	9.3	296	0	243	220	79
NOV											
10...	80	--	130	28	320	9.2	276	0	226	260	480
DEC											
22...	110	--	110	230	200	7.7	308	0	253	160	260
JAN											
20...	40	--	130	24	270	7.9	315	0	258	330	390
FEB											
15...	60	--	90	19	170	7.6	274	0	225	130	230
MAR											
03...	590	--	82	17	120	6.7	258	0	212	100	170
APR											
13...	580	--	23	18	160	8.5	296	0	243	130	230
MAY											
03...	980	--	100	23	200	8.3	304	0	249	150	280
JUN											
16...	5700	--	110	26	270	9.6	255	0	209	210	360
JUL											
06...	--	220	90	31	1700	23	251	0	206	210	370
AUG											
23...	--	15000	86	14	68	10	148	0	121	62	100
SEP											
06...	--	9000	50	14	77	16	136	0	112	69	110

06803080 SALT CREEK ABOVE BEAL SLOUGH, AT LINCOLN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL RESI-DUE (MG/L) (00500)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO-GEN (N) (MG/L) (00605)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L) (00625)	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L) (00666)
OCT 21...	1240	1.69	27.9	1270	.02	.00	.52	.52	.54	.23	.17
NOV 10...	1370	1.86	30.8	1410	.28	.04	.32	.36	.64	.24	.17
DEC 22...	953	1.30	18.3	974	.18	.01	.36	.37	.55	.09	--
JAN 20...	1230	1.67	23.2	1220	.72	.28	.19	.47	1.2	.32	--
FEB 15...	803	1.09	26.0	853	.50	.05	.42	.47	.97	.37	.31
MAR 03...	636	.87	22.3	688	.25	.04	.55	.59	.84	.29	--
APR 13...	836	1.14	23.7	901	.02	.01	1.5	1.5	1.5	.32	--
MAY 03...	945	1.29	30.6	1070	.91	.01	--	--	--	.46	.18
JUN 16...	1100	1.50	25.2	1210	--	--	--	--	--	.01	--
JUL 06...	1150	1.56	8.01	1210	--	--	--	--	--	.31	--
AUG 23...	370	.51	16.3	1090	1.1	.31	2.4	2.7	3.8	.72	.29
SEP 06...	407	.55	33.0	998	.92	.24	.58	.82	1.7	.76	--

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)
NOV 10...	1110	12	440	210	130	28	310	6.4	9.2
FEB 15...	1015	12	300	75	89	18	160	4.0	6.7
MAY 03...	1415	35	340	91	100	23	200	4.7	8.3
AUG 23...	1230	75	150	29	45	9.4	63	2.2	8.5

06803080 SALT CREEK ABOVE BEAL SLOUGH, AT LINCOLN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)
NOV								
10...	.5	20	1380	520	160	270	1	0
FEB								
15...	.5	18	788	730	30	320	--	--
MAY								
03...	.6	15	928	360	70	840	1	0
AUG								
23...	.7	19	381	130	30	30	--	--

DATE	TIME	TOTAL PCB (UG/L) (39516)	POLY-CHLO-RINATED NAPH-THA-LENES (UG/L) (39250)	TOTAL ALDRIN (UG/L) (39330)	TOTAL CHLOR-DANE (UG/L) (39350)	TOTAL DDD (UG/L) (39360)	TOTAL DDE (UG/L) (39365)	TOTAL DDT (UG/L) (39370)	TOTAL DI-AZINON (UG/L) (39570)	TOTAL DI-ELDRIN (UG/L) (39380)	TOTAL ENDRIN (UG/L) (39390)	TOTAL ETHION (UG/L) (39398)
NOV												
10...	1110	.0	.00	.00	.0	.00	.00	.00	.00	.00	.00	.00
FEB												
15...	1015	.0	.00	.00	.0	.00	.00	.00	.00	.00	.00	.00
MAY												
03...	1015	.0	.00	.00	.0	.00	.00	.00	.01	.00	.00	.00
AUG												
23...	1230	.0	.00	.00	.0	.00	.00	.00	.00	.00	.00	.00

DATE	TOTAL HEPTA-CHLOR (UG/L) (39410)	TOTAL HEPTA-CHLOR EPOXIDE (UG/L) (39420)	TOTAL LINDANE (UG/L) (39340)	TOTAL MALA-THION (UG/L) (39530)	TOTAL METHYL PARA-THION (UG/L) (39600)	TOTAL METHYL TRI-THION (UG/L) (39790)	TOTAL PARA-THION (UG/L) (39540)	TOTAL TOX-APHENE (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	TOTAL 2,4-D (UG/L) (39730)	TOTAL 2,4,5-T (UG/L) (39740)	TOTAL SILVEX (UG/L) (39760)
NOV												
10...	.00	.00	.00	.00	.00	.00	.00	0	.00	.00	.03	.00
FEB												
15...	.00	.00	.00	.00	.00	.00	.00	0	.00	.00	.00	.00
MAY												
03...	.00	.00	.00	.00	.00	.00	.00	0	.00	.53	.00	.02
AUG												
23...	.00	.00	.00	.00	.00	.00	.00	0	.00	.18	.01	.00

06803500 SALT CREEK AT LINCOLN, NE

LOCATION.--Lat 40°50'49", long 96°40'54", in NW1/4SW1/4 sec.7, T.10 N., R.7 E., Lancaster County, Hydrologic Unit 10200203, near center of channel on downstream side of pier of bridge on North 27th Street at north edge of Lincoln, 1 mi (2 km) downstream from Oak Creek.

DRAINAGE AREA.--684 mi² (1,772 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1949 to current year.

REVISED RECORDS.--WDR NE-71: Drainage area.

GAGE.--Water-stage recorder for stages above 6.2 ft (1.89 m); nonrecording gage read twice daily. Datum of gage is 1,113.9 ft (339.52 m) above mean sea level.

REMARKS.--Records fair. Flood flow affected by several detention dams.

AVERAGE DISCHARGE.--28 years, 198 ft³/s (5.607 m³/s), 143,500 acre-ft/yr (0.177 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,200 ft³/s (799 m³/s) June 2, 1951, gage height, 26.15 ft (7.971 m); minimum daily, 21 ft³/s (0.59 m³/s) July 10, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1951, may have been equaled or exceeded in discharge by flood of July 6, 1908, which reached a stage of 33.6 ft (10.24 m). Channel changes since 1908 have materially altered the stage-discharge relation.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 31	0630	4190	119	11.80	3.597
Sept. 3	1330	*7600	215	15.30	4.663

Minimum daily discharge, 21 ft³/s (0.59 m³/s) July 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	65	63	52	69	79	86	59	88	54	52	542
2	55	69	67	48	71	132	90	75	79	54	48	327
3	45	69	69	63	75	106	106	94	71	41	48	3640
4	55	69	69	63	81	81	143	83	65	39	59	2020
5	55	69	61	59	73	77	104	88	63	33	79	397
6	50	63	77	52	69	67	88	79	67	73	52	241
7	46	55	67	63	73	75	81	71	59	43	46	179
8	45	69	61	61	77	73	77	55	63	33	88	150
9	39	69	63	54	79	73	69	67	63	35	223	161
10	35	71	63	57	81	73	57	61	65	21	259	99
11	50	77	55	54	83	104	67	61	63	809	135	99
12	54	75	59	57	79	109	71	59	63	184	71	200
13	50	69	63	59	67	81	109	59	71	90	61	200
14	46	61	63	50	88	86	79	52	69	57	88	166
15	46	73	65	54	79	77	81	50	73	69	259	124
16	43	71	67	52	81	71	75	63	65	59	1210	97
17	35	71	67	65	81	67	71	65	65	50	304	268
18	52	75	61	65	81	69	83	48	63	61	124	463
19	55	75	59	67	86	176	124	63	65	59	69	140
20	52	67	57	69	65	111	127	99	71	61	54	111
21	52	67	69	67	83	94	104	465	437	119	983	97
22	109	75	65	67	83	77	90	295	124	55	265	88
23	77	73	61	65	79	69	83	171	127	45	104	99
24	65	65	63	73	83	67	67	99	99	41	71	119
25	65	59	61	73	83	67	77	83	90	52	59	111
26	67	71	57	75	83	59	71	67	61	99	55	97
27	61	52	69	73	71	55	71	345	61	59	52	79
28	67	54	75	69	75	238	79	295	57	67	52	71
29	63	65	75	71	---	143	73	200	57	156	54	71
30	63	65	59	61	---	114	67	135	55	71	177	75
31	57	---	48	69	---	101	---	137	---	50	2380	---
TOTAL	1717	2028	1978	1927	2178	2871	2570	3643	2519	2739	7581	10531
MEAN	55.4	67.6	63.8	62.2	77.8	92.6	85.7	118	84.0	88.4	245	351
MAX	109	77	77	75	88	238	143	465	437	809	2380	3640
MIN	35	52	48	48	65	55	57	48	55	21	46	71
AC-FT	3410	4020	3920	3820	4320	5690	5100	7230	5000	5430	15040	20890

CAL YR 1976 TOTAL 31616 MEAN 86.4 MAX 520 MIN 33 AC-FT 62710
WTR YR 1977 TOTAL 42282 MEAN 116 MAX 3640 MIN 21 AC-FT 83870

06803500 SALT CREEK AT LINCOLN, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951, 1952-54, 1968 to current year.

PERIOD OF DAILY RECORD:
SPECIFIC CONDUCTANCE: October 1968 to current year.
WATER TEMPERATURES: May to September 1951, October 1968 to current year.
SUSPENDED SEDIMENT DISCHARGE: March to September 1951, March 1952 to September 1954.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 37,500 micromhos Oct. 3, 1973; minimum daily, 170 micromhos Oct. 11, 1973.
WATER TEMPERATURES: Maximum, 36.5°C June 20, 1974; minimum, 0.0°C on several days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 41,100 mg/L Mar. 31, 1952; minimum daily not determined.
SEDIMENT LOADS: Maximum daily, 857,000 tons (780,000 tonnes) June 2, 1951; minimum daily not determined.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 7,000 micromhos July 2; minimum daily, 350 micromhos Sept. 3.
WATER TEMPERATURES: Maximum, 29.0°C June 26; minimum, 4.5°C Jan. 8, 16, 20, 30.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM (COL. PER 100 ML) (31616)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)
OCT												
01...	1100	69	5570	7.9	17.0	10	8.6	--	23	--	86	--
19...	1300	58	6400	6.8	13.5	10	8.0	25	3	--	48	--
NOV												
09...	1000	63	3600	7.5	16.5	5	10.4	12	--	17	<1	--
JAN												
13...	1200	63	4260	7.6	5.5	20	8.0	16	--	10030	5100	--
20...	1410	71	6980	7.5	5.5	10	12.1	16	--	<33	40	--
FEB												
11...	1415	85	6990	6.7	11.0	10	11.7	20	--	<10	253	--
MAR												
03...	1300	95	4460	7.7	5.0	35	10.0	11	--	3	80	--
APR												
13...	1115	98	3900	7.6	17.5	40	8.4	7.5	--	19	16	--
MAY												
03...	1315	122	4500	7.6	23.0	20	8.7	26	--	78	580	--
JUN												
15...	1305	79	7300	8.3	29.0	25	12.9	14	--	8210	9100	--
JUL												
06...	1310	66	2980	7.9	29.0	5	9.1	10	--	22	--	36
AUG												
24...	0815	63	5950	7.8	19.5	95	7.4	5.1	--	B1330	--	B2760
SEP												
08...	0845	124	4350	7.9	22.5	90	7.4	10	--	<33	--	336

DATE	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	DISSOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)
OCT											
01...	1600	--	4.43	612	.83	10	.00	10	11	4.8	4.2
19...	860	3680	5.00	585	1.6	11	.00	11	13	6.0	6.6
NOV											
09...	96	2130	2.90	367	2.0	13	.00	13	15	7.0	--
JAN											
13...	1700	3640	4.95	619	1.0	9.1	2.9	12	13	4.5	4.5
20...	2300	4600	6.26	882	.89	7.6	2.0	9.6	11	1.9	--
FEB											
11...	2100	3900	5.30	895	.83	7.2	.00	7.2	8.0	3.3	--
MAR											
03...	1200	--	3.39	639	.65	7.2	1.1	8.3	9.0	3.1	3.0
APR											
13...	1100	2570	3.50	680	.53	8.6	.40	9.0	9.5	2.9	--
MAY											
03...	1200	2600	3.54	856	.63	4.5	.80	5.3	5.9	2.4	--
JUN											
15...	1800	3940	5.36	840	.37	4.0	10	14	14	4.2	3.1
JUL											
06...	700	1710	2.33	305	1.9	--	--	--	--	7.5	--
AUG											
24...	1700	3450	4.69	587	.08	3.7	6.0	9.7	11	3.3	--
SEP											
08...	1200	--	3.47	854	.83	2.5	1.1	3.6	4.4	2.1	.95

06803500 SALT CREEK AT LINCOLN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)
OCT 01...	1100	22	310	96	83	25	1100	27	21	263
JAN 13...	1200	35	340	19	92	26	1200	28	18	388
MAR 03...	1300	35	260	15	70	20	820	22	14	297
JUN 15...	1345	22	350	78	92	29	1200	28	18	330
SEP 08...	0845	23	290	60	79	22	880	23	16	280

DATE	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED NITRATE (N) (MG/L) (00618)	DIS-SOLVED NITRITE (N) (MG/L) (00613)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)
OCT 01...	0	216	270	.9	27	3240	.53	.22	.75	3
JAN 13...	0	318	260	.9	31	3520	--	--	--	--
MAR 03...	0	244	190	.7	23	2490	.58	.04	.62	6
JUN 15...	0	270	300	1.1	22	3630	--	--	--	--
SEP 08...	0	230	190	.6	23	2550	.65	.15	.80	6

DATE	DIS-SOLVED BARIUM (BA) (UG/L) (01005)	DIS-SOLVED BERYL-LIUM (BE) (UG/L) (01010)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L) (01032)	DIS-SOLVED COBALT (CO) (UG/L) (01035)	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED LITHIUM (LI) (UG/L) (01130)
OCT 01...	300	0	560	4	0	2	9	80	8	110
JAN 13...	--	--	560	--	--	--	--	--	--	--
MAR 03...	0	0	420	2	0	1	8	90	7	80
JUN 15...	--	--	600	--	--	--	--	--	--	--
SEP 08...	900	0	420	0	0	0	12	60	11	80

DATE	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L) (01060)	DIS-SOLVED NICKEL (NI) (UG/L) (01065)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED STRON-TIUM (SR) (UG/L) (01080)	DIS-SOLVED VANA-DIUM (V) (UG/L) (01085)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)	CYANIDE (CN) (MG/L) (00720)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L) (38260)
OCT 01...	100	3	7	1	0	1000	8.7	40	.04	.00
JAN 13...	--	--	--	--	--	--	--	--	--	--
MAR 03...	370	4	12	1	0	840	6.3	30	.03	.10
JUN 15...	--	--	--	--	--	--	--	--	--	--
SEP 08...	210	5	16	1	0	860	5.0	20	.01	.20

06803500 SALT CREEK AT LINCOLN, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2980	3250	3690	5580	4820	4780	4200	4680	3870	5920	2910	2400
2	3050	3940	3870	4120	5180	2300	3850	4820	3980	7000	3850	2400
3	3110	4210	4180	3890	4880	4130	3900	3670	3860	3280	4560	358
4	3700	4450	3750	6400	4880	4360	3760	4520	3670	5400	3280	808
5	3300	3940	3590	3900	4780	4620	4330	4400	4920	2270	2630	1550
6	4200	4480	4220	3960	5000	4190	4880	4880	4360	1900	3570	2720
7	3910	4300	4180	4280	4920	4300	4300	4920	4090	2230	2950	3300
8	4460	4200	4090	3900	5680	4700	4920	5900	4100	2610	2450	3770
9	4020	4220	3820	4230	5100	4370	4800	5400	5730	5340	2370	4150
10	3780	4350	4060	3860	4980	4430	5770	5900	5500	4340	3750	4930
11	3200	4080	4180	4610	4940	3990	4290	5780	3950	1550	3190	5800
12	3590	4780	3080	4390	5280	2930	4600	5700	5860	2500	3000	2780
13	3570	4050	4000	5190	5440	3750	4330	5500	4830	2450	2740	2430
14	3130	3810	4160	4780	4900	3730	4880	6800	3100	2380	1780	3450
15	4330	4320	4300	4550	4600	3870	4670	4870	3120	2430	2150	4080
16	3910	5080	4190	4630	4880	4330	4520	5450	3300	2680	1100	4530
17	3920	3990	4050	4900	5540	4500	4600	4700	3180	3350	2050	2180
18	3060	4050	4390	4390	5340	4580	4900	5200	3000	2200	2010	1240
19	4160	3810	3830	4720	4330	1780	2560	5800	1530	2690	2060	3180
20	3590	3770	5000	4610	5480	3700	2800	3670	1450	2610	3900	3880
21	3620	3830	3390	4500	5000	4090	4260	1450	1450	2460	1070	4800
22	5290	3940	3690	4500	4900	4980	4340	2750	3270	2750	2590	5070
23	4160	3720	3680	4500	4080	4630	4600	3270	3360	3130	3650	4300
24	4210	4000	3210	4820	4300	4830	5300	3830	3470	2590	3980	4400
25	4190	4560	2670	5180	4270	4830	4500	3750	3420	2880	4370	3500
26	4270	4870	2170	5320	4300	5200	4890	3550	5130	4280	4180	4150
27	5450	5490	4400	5320	4680	5400	4950	1230	3880	2850	5980	4780
28	4040	4510	2890	5240	4770	1550	5320	2930	6300	2890	4630	5700
29	3790	3820	2830	5240	---	3540	5560	2260	5400	3150	4370	5800
30	4250	4640	5400	5680	---	3820	5560	3080	6800	3550	4520	4400
31	4220	---	6000	5100	---	4270	---	3360	---	3550	560	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.5	17.5	10.0	6.5	8.0	10.0	14.5	23.5	24.5	26.5	25.5	23.5
2	23.5	16.5	10.0	9.0	8.0	8.0	13.5	21.0	24.5	26.5	26.5	23.5
3	21.0	14.5	10.0	10.0	9.0	9.0	10.0	24.5	24.5	26.5	26.5	23.5
4	19.0	13.5	11.0	5.5	6.5	8.0	10.0	23.5	24.5	25.5	26.5	23.5
5	20.0	15.5	11.0	9.0	9.0	11.0	13.5	23.5	26.5	24.5	25.5	23.5
6	19.0	14.5	7.5	9.0	5.5	13.5	18.0	24.5	21.0	29.0	25.5	26.5
7	20.0	13.5	9.0	9.0	6.5	14.5	20.0	21.0	24.5	24.5	26.5	25.5
8	20.0	15.5	10.0	4.5	9.0	15.5	20.0	23.5	26.5	24.5	25.5	26.5
9	21.0	15.5	12.0	6.5	10.0	15.5	21.0	22.0	26.5	25.5	25.5	23.5
10	21.0	15.5	9.0	6.5	12.0	14.5	20.5	21.0	26.5	24.5	23.5	23.5
11	22.0	12.0	10.0	8.0	13.5	13.5	19.0	22.0	23.5	24.5	24.5	23.5
12	21.0	10.0	10.0	8.0	10.0	13.5	20.0	23.5	23.5	25.5	24.5	22.0
13	21.0	10.0	10.0	9.0	10.0	14.5	20.0	22.0	22.0	26.5	25.5	21.0
14	21.0	13.5	12.0	10.0	8.0	16.5	21.0	22.0	23.0	25.5	21.0	22.0
15	19.0	13.5	12.0	6.5	8.0	15.5	20.0	24.5	23.5	26.5	26.5	22.0
16	17.5	13.5	13.5	4.5	8.0	15.5	21.0	21.0	23.5	26.5	21.0	24.5
17	15.5	15.5	13.5	5.5	11.0	15.5	21.0	23.5	22.0	25.5	25.5	23.5
18	15.5	15.5	13.5	6.5	11.0	15.5	19.0	24.5	23.0	26.5	24.5	22.0
19	14.5	15.5	10.0	9.0	10.0	6.5	18.0	21.0	23.0	26.5	25.5	21.0
20	16.5	13.5	7.5	9.0	11.0	11.0	16.5	23.5	21.5	26.5	26.5	21.0
21	17.5	12.0	10.0	10.0	13.5	13.5	18.0	20.0	21.0	24.5	20.0	22.0
22	17.5	12.0	10.0	9.0	12.0	13.5	21.0	21.0	23.5	25.5	21.0	23.5
23	17.5	14.5	10.0	6.5	10.0	12.0	21.0	25.5	25.5	26.5	24.5	21.0
24	14.5	15.5	8.5	8.0	10.0	15.5	19.0	25.5	25.5	28.0	25.5	21.0
25	15.5	14.5	7.5	8.0	10.0	14.5	19.0	24.5	25.5	24.5	25.5	22.0
26	16.5	10.0	9.0	8.0	10.0	16.5	20.0	23.5	29.0	26.5	28.0	23.5
27	15.5	7.5	7.5	8.0	12.0	19.0	22.0	21.0	26.5	25.5	24.5	22.0
28	14.5	10.0	5.0	4.5	10.0	13.5	21.0	25.5	24.5	23.5	25.5	20.0
29	15.5	10.0	9.0	5.5	---	14.5	21.0	25.5	26.5	28.0	24.5	22.0
30	16.5	10.0	6.5	6.5	---	10.0	19.0	21.0	24.5	26.5	25.5	21.0
31	16.5	---	5.5	6.5	---	13.5	---	24.5	---	23.5	21.0	---

06803510 LITTLE SALT CREEK NEAR LINCOLN, NE

LOCATION.--Lat 40°53'36", long 96°40'52", in NW1/4SW1/4 sec.30, T.11 N., R.7 E., Lancaster County, Hydrologic Unit 10200203, on left bank 10 ft (3 m) downstream from county road bridge and 0.4 mi (0.6 km) north of intersection of Interstate Highway 80 and North 27th Street north of Lincoln.

DRAINAGE AREA.--43.6 mi² (112.9 km²).

PERIOD OF RECORD.--January 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,117.73 ft (340.684 m) above mean sea level (Lancaster County Engineer bench mark).

REMARKS.--Records fair except those for winter period, which are poor. Periodic water quality measurements are published in tables for water quality at partial-record sites.

AVERAGE DISCHARGE.--8 years, 9.47 ft³/s (0.268 m³/s), 6,860 acre-ft/yr (8.46 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,350 ft³/s (66.6 m³/s) Sept. 3, 1977, gage height, 11.90 ft (3.627 m); maximum gage height, 13.38 ft (4.078 m) Oct. 11, 1973, backwater from Salt Creek; minimum daily discharge, 0.20 ft³/s (0.006 m³/s) Sept. 29, 30, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 16	0030	1060	30.0	8.33	2.539	Sept. 3	1400	*2350	66.6	11.90	3.627
Aug. 20	2200	972	27.5	8.04	2.451	Sept. 4	1200	1260	35.7	9.00	2.743

Minimum daily discharge, 0.62 ft³/s (0.018 m³/s) Oct. 1, 2.

REVISIONS.--The maximum discharges for some water years have been revised, as shown in the following table. They supercede figures published in the reports for 1969-1973:

Water year	Date	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Water year	Date	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
1969	Apr. 16, 1969	570	16.1	6.45	1.966	1972	May 1, 1972	712	20.2	7.05	2.149
1970	May 24, 1970	560	15.9	6.40	1.951	1973	May 7, 1973	720	20.4	7.08	2.158
1971	Feb. 18, 1971	578	16.4	6.49	1.978						

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.62	3.1	1.0	1.4	3.0	4.0	3.9	2.3	4.6	1.2	.66	26
2	.62	2.7	1.5	1.6	3.5	4.6	3.9	2.3	3.3	1.3	.66	99
3	.70	2.7	2.3	1.8	4.2	6.7	4.6	2.5	3.3	1.4	.70	709
4	.70	2.7	2.2	1.7	3.9	5.7	10	2.3	3.3	1.3	1.0	304
5	.70	2.7	2.1	1.5	3.7	5.2	6.7	2.9	3.3	1.3	3.1	36
6	.70	2.7	1.7	1.7	3.3	4.6	5.0	3.6	2.7	1.3	1.4	16
7	1.2	2.7	1.3	1.9	3.1	4.6	3.3	2.7	2.9	1.3	1.3	9.6
8	3.1	2.7	1.6	2.0	3.4	4.3	2.7	2.3	3.1	1.3	1.4	7.6
9	2.3	2.5	1.9	1.3	3.9	3.9	3.1	2.3	2.7	1.3	45	6.7
10	2.1	2.5	1.4	1.7	5.0	3.9	2.7	2.3	2.9	1.3	13	3.9
11	2.3	2.5	1.6	2.1	5.3	4.6	2.9	2.1	2.9	61	6.4	3.9
12	2.3	2.7	1.5	2.4	5.3	8.1	3.6	2.1	3.6	5.7	3.1	6.7
13	2.3	2.7	1.4	2.7	4.8	5.3	7.1	2.1	3.9	1.5	2.9	5.0
14	2.5	2.3	1.5	3.2	4.3	3.9	6.4	2.3	2.1	1.1	4.6	3.9
15	2.5	2.5	1.5	2.4	4.5	3.3	4.6	2.9	1.9	1.3	55	3.3
16	2.5	2.5	1.6	1.7	4.5	2.7	3.6	3.3	1.7	1.1	225	3.3
17	2.3	2.3	1.7	2.4	4.6	2.5	3.6	4.3	2.5	1.1	9.1	4.4
18	2.5	2.3	1.9	2.5	5.7	2.3	3.6	3.9	1.9	.94	3.6	3.6
19	2.3	2.5	1.7	2.7	5.3	3.6	3.9	18	1.5	.78	2.7	2.9
20	2.3	2.7	1.5	2.8	5.2	6.4	5.0	37	1.7	.94	130	2.7
21	2.5	2.3	1.7	3.1	5.4	6.4	5.7	12	3.6	1.3	155	2.9
22	2.3	2.3	2.0	3.2	5.7	5.3	5.0	15	3.6	1.4	6.4	2.9
23	3.1	2.1	2.8	3.5	7.1	4.3	4.3	5.7	2.7	2.3	3.6	4.3
24	2.9	2.1	2.2	3.9	5.7	3.6	2.9	4.3	22	1.5	2.1	3.9
25	2.5	2.3	2.0	2.9	4.3	3.3	2.7	3.3	3.6	1.3	2.3	3.1
26	2.3	2.0	1.9	1.5	3.6	3.3	2.5	3.6	2.3	1.1	1.9	2.7
27	2.7	1.7	1.7	1.3	3.3	3.3	2.3	11	1.7	.94	1.9	2.9
28	2.7	1.3	1.5	2.0	3.3	9.6	2.5	8.6	1.7	12	2.1	2.9
29	2.3	.80	1.4	2.8	---	18	2.3	9.1	1.3	23	2.1	3.1
30	3.1	.80	1.3	2.6	---	8.1	2.3	11	1.3	1.1	3.3	4.6
31	3.1	---	1.1	2.5	---	4.6	---	6.7	---	.70	170	---
TOTAL	66.04	69.70	52.5	70.8	124.9	160.0	122.7	193.8	99.6	135.10	861.32	1290.8
MEAN	2.13	2.32	1.69	2.28	4.46	5.16	4.09	6.25	3.32	4.36	27.8	43.0
MAX	3.1	3.1	2.8	3.9	7.1	18	10	37	22	61	225	709
MIN	.62	.80	1.0	1.3	3.0	2.3	2.3	2.1	1.3	.70	.66	2.7
AC-FT	131	138	104	140	248	317	243	384	198	268	1710	2560

CAL YR 1976 TOTAL 1320.32 MEAN 3.61 MAX 58 MIN .48 AC-FT 2620
WTR YR 1977 TOTAL 3247.26 MEAN 8.90 MAX 709 MIN .62 AC-FT 6440

06803520 STEVENS CREEK NEAR LINCOLN, NE

LOCATION.--Lat 40°51'25", long 96°35'42", in NW1/4NE1/4 sec.11, T.10 N., R.7 E., Lancaster County, Hydrologic Unit 10200203, on left bank 20 ft (6 m) upstream from county road bridge on Havelock Avenue and 1.6 mi (2.6 km) east of 70th Street at east edge of Lincoln.

DRAINAGE AREA.--47.8 mi² (123.8 km²).

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,125.57 ft (343.074 m) above mean sea level (Lancaster County Engineer bench mark).

REMARKS.--Records good except those for winter period and period of backwater from beaver dams, which are poor.

AVERAGE DISCHARGE.--9 years, 11.9 ft³/s (0.337 m³/s), 8,620 acre-ft/yr (10.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,850 ft³/s (80.7 m³/s) Oct. 10, 1973, gage height, 17.03 ft (5.191 m); no flow July 31, Aug. 2-4, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 31	0900	555	15.7	9.22	2.810
Sept. 3	2100	*2620	74.2	17.13	5.221

No flow July 31, Aug. 2-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	.47	.40	.50	.80	1.3	1.3	.80	.88	.26	.01	9.0
2	.24	.48	.50	.60	1.0	1.5	1.2	.80	.70	.13	.00	64
3	.41	.48	.60	.70	1.2	1.7	1.3	.80	.63	.10	.00	1390
4	.19	.41	.60	.70	1.2	1.5	2.0	.80	.61	.08	.00	303
5	.15	.49	.60	.60	1.0	1.3	1.8	.84	.63	.10	.02	29
6	.20	.54	.50	.70	.80	1.2	1.4	.64	.63	.10	.02	10
7	.21	.43	.40	.90	.60	1.3	1.2	.68	.56	.08	.01	6.3
8	.21	.44	.50	.90	.90	1.4	1.1	.84	.40	.08	.02	4.2
9	.20	.64	.70	.70	1.3	1.5	1.1	.84	.44	.09	.20	5.9
10	.29	.46	.60	.60	1.3	1.5	1.0	.76	.43	.09	.25	4.5
11	.18	.40	.50	.90	1.2	2.0	.92	.80	.43	20	.19	3.0
12	.17	.49	.60	1.0	1.1	2.1	.96	.60	.49	4.4	.16	5.0
13	.19	.54	.67	1.0	1.1	1.6	1.5	.68	.61	.01	.22	5.9
14	.17	.57	.75	1.0	1.1	1.5	1.5	.68	.50	.10	.20	3.6
15	.18	.59	.75	.80	.99	1.3	1.0	.60	.27	.18	6.9	2.8
16	.21	.61	.85	.50	.89	1.3	1.5	.64	.23	.15	93	2.5
17	.23	.62	.81	.70	1.1	1.1	1.4	.76	.21	.06	3.7	40
18	.28	.65	.85	.80	1.3	1.0	1.4	.80	.25	.03	1.5	12
19	.30	.71	.79	1.0	1.2	1.7	5.0	.80	.35	.03	.63	4.4
20	.35	.69	.50	1.0	1.1	2.1	2.6	.88	.40	.02	14	3.0
21	.36	.69	.60	1.1	1.2	1.7	1.9	8.2	.45	.03	31	2.1
22	.37	.60	.74	1.1	1.4	1.4	1.4	4.5	1.6	.03	2.2	1.6
23	.32	.70	.75	1.1	1.7	1.1	1.0	2.6	.95	.02	.69	2.0
24	.59	.70	.75	1.1	1.6	1.0	.68	1.3	.82	.02	.46	3.3
25	.49	.83	.70	1.1	1.3	1.1	.72	.57	.92	.01	.52	3.6
26	.36	.80	.74	1.2	1.2	1.2	.72	11	.75	.01	.33	2.4
27	.30	.70	.81	1.1	1.1	1.2	.76	66	.73	.01	.29	1.8
28	.27	.50	.79	.60	1.2	2.3	.76	40	.58	.01	.26	1.6
29	.31	.30	.70	.70	---	4.4	.72	27	.19	.01	.36	1.3
30	.39	.40	.50	.80	---	3.0	.80	6.1	.14	.01	8.0	1.5
31	.39	---	.30	.70	---	1.6	---	3.6	---	.00	250	---
TOTAL	8.79	17.01	19.85	26.20	31.88	49.9	40.64	185.99	17.02	27.12	423.21	1936.1
MEAN	.28	.57	.64	.85	1.14	1.61	1.35	6.00	.57	.87	13.7	64.5
MAX	.59	.83	.85	1.2	1.7	4.4	5.0	66	1.6	20	250	1390
MIN	.15	.30	.30	.50	.60	1.0	.68	.57	.14	.00	.00	1.3
AC-FT	17	34	39	52	63	99	81	369	34	54	839	3840

CAL YR 1976 TOTAL 610.86 MEAN 1.67 MAX 29 MIN .01 AC-FT 1210
WTR YR 1977 TOTAL 2781.71 MEAN 7.62 MAX 1390 MIN .00 AC-FT 5520

06803525 SALT CREEK BELOW STEVENS CREEK, NEAR WAVERLY, NE

LOCATION.--Lat 40°54'18", long 96°35'09", in NW1/4NW1/4 sec.24, T.11 N., R.7 E., Lancaster County, Hydrologic Unit 10200203, at bridge 0.5 miles north of Interstate Highway 80 and 3 miles southwest of Waverly.

DRAINAGE AREA.--815 sq mi.

PERIOD OF RECORD.--Water year 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	DISSOLVED OXYGEN (MG/L) (00300)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM (COL. PER 100 ML) (31616)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)
OCT											
01...	1010	56	7400	7.2	16.5	10	8.4	110	5.6	420	--
19...	1115	54	7790	7.1	7.0	10	7.1	170	7.2	960	--
NOV											
10...	1000	71	7590	7.1	5.0	--	9.8	150	5.5	--	100
DEC											
21...	1400	66	7640	7.8	.5	10	9.4	53	15	--	40
JAN											
20...	1230	54	6870	7.6	.5	15	6.4	150	10	--	530
FEB											
15...	1200	50	6190	7.8	2.0	10	11.7	110	9.0	--	5
MAR											
01...	1300	62	6690	7.9	6.5	7.0	12.1	68	4.2	--	10
APR											
13...	1015	115	3730	7.8	15.0	100	5.0	130	14	--	2630
MAY											
03...	1230	270	6000	7.8	20.5	190	.0	320	11	--	33300
JUN											
15...	1235	70	8550	8.5	29.0	10	9.1	96	11	--	2100
JUL											
06...	1215	67	8090	8.1	28.0	7.0	10.0	75	14	--	900
AUG											
23...	1115	176	3700	7.8	21.0	300	6.1	72	11	--	3600
SEP											
08...	1215	150	4150	7.8	25.0	65	6.1	65	18	--	1200

DATE	STREPTOCOCCI (COLONIES PER 100 ML) (31679)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	TOTAL CALCIUM (CA) (MG/L) (00916)	TOTAL MAGNESIUM (MG) (MG/L) (00927)	TOTAL SODIUM (NA) (MG/L) (00929)	TOTAL POTASSIUM (K) (MG/L) (00937)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)
OCT											
01...	5800	--	85	30	1600	20	354	0	290	340	2800
19...	8800	--	76	29	1600	21	354	0	290	350	2600
NOV											
10...	41	--	92	32	1600	20	436	0	358	380	--
DEC											
21...	220	--	100	110	1600	20	437	0	358	360	2100
JAN											
20...	1770	--	100	30	1600	18	407	0	334	370	2100
FEB											
15...	1500	--	90	28	1300	18	384	0	315	370	1900
MAR											
01...	20	--	87	28	1300	17	384	0	315	--	1700
APR											
13...	9200	--	66	18	820	13	270	0	221	200	1100
MAY											
03...	30000	--	110	28	1400	19	315	0	258	260	1500
JUN											
15...	8500	--	89	31	1700	22	361	0	296	390	2200
JUL											
06...	--	130	61	19	67	5.6	346	0	284	390	2300
AUG											
23...	--	80330	72	22	690	19	217	0	178	170	1000
SEP											
08...	--	1330	75	21	740	18	264	0	217	210	1100

06803525 SALT CREEK BELOW STEVENS CREEK, NEAR WAVERLY, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL RESI-DUE (MG/L) (00500)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO-GEN (N) (MG/L) (00605)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L) (00625)	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOL-VED PHOS-PHORUS (P) (MG/L) (00666)
OCT											
01...	4150	5.64	636	4310	1.2	8.4	--	--	--	5.2	5.1
19...	4590	6.24	670	4660	1.2	6.3	2.5	8.8	10	7.1	7.0
NOV											
10...	4650	6.32	896	4660	2.0	6.3	--	--	--	5.2	5.1
DEC											
21...	4380	5.96	781	4080	1.2	9.4	.10	9.5	11	2.3	--
JAN											
20...	4340	5.90	634	4460	.70	11	.00	11	12	4.5	--
FEB											
15...	3790	5.15	912	3860	.90	8.6	1.3	9.9	11	4.9	4.8
MAR											
01...	3710	5.05	621	3810	.63	6.3	.00	6.3	6.9	4.0	--
APR											
13...	2380	3.24	734	2410	.57	3.9	1.8	5.7	6.3	2.3	--
MAY											
03...	3110	4.23	1050	4130	4.5	3.5	--	--	--	5.4	2.3
JUN											
15...	4480	6.09	847	4510	--	--	--	--	--	--	--
JUL											
06...	4580	6.23	900	4800	1.0	6.7	--	--	--	6.5	--
AUG											
23...	2090	2.84	711	2810	1.1	3.7	10	14	15	5.5	5.0
SEP											
08...	2360	3.21	956	2540	1.0	2.6	1.3	3.9	4.9	7.5	--

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)
NOV									
10...	1000	16	350	0	88	32	1600	37	18
FEB									
15...	1200	25	330	15	87	28	1200	29	16
MAY									
03...	1230	36	260	2	69	22	1000	27	15
AUG									
23...	1115	70	250	72	70	18	690	19	15

06803525 SALT CREEK BELOW STEVENS CREEK, NEAR WAVERLY, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)
NOV 10...	.9	23	--	730	100	180	1	0
FEB 15...	.9	25	3820	650	80	380	--	--
MAY 03...	.7	14	3040	490	90	840	1	0
AUG 23...	.7	19	2090	390	40	60	--	--

DATE	TIME	TOTAL PCB (UG/L) (39516)	POLY-CHLO-RINATED NAPH-THA-LENES (UG/L) (39250)	TOTAL ALDRIN (UG/L) (39330)	TOTAL CHLOR-DANE (UG/L) (39350)	TOTAL DDD (UG/L) (39360)	TOTAL DDE (UG/L) (39365)	TOTAL DDT (UG/L) (39370)	TOTAL DI-AZINON (UG/L) (39570)	TOTAL DI-ELDRIN (UG/L) (39380)	TOTAL ENDRIN (UG/L) (39390)	TOTAL ETHION (UG/L) (39398)
NOV 10...	1000	.0	.00	.00	.0	.00	.00	.00	.03	.00	.00	.00
FEB 15...	1200	.0	.00	.00	.0	.00	.00	.00	.17	.00	.00	.00
MAY 03...	1230	.0	.00	.00	.3	.04	.02	.02	.00	.01	.00	.00
AUG 23...	1115	.0	.00	.00	.0	.00	.00	.00	.15	.01	.00	.00

DATE	TOTAL HEPTA-CHLOR (UG/L) (39410)	TOTAL HEPTA-CHLOR EPOXIDE (UG/L) (39420)	TOTAL LINDANE (UG/L) (39340)	TOTAL MALA-THION (UG/L) (39530)	TOTAL METHYL PARA-THION (UG/L) (39600)	TOTAL METHYL TRI-THION (UG/L) (39790)	TOTAL PARA-THION (UG/L) (39540)	TOTAL TOX-APHENE (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	TOTAL 2,4-D (UG/L) (39730)	TOTAL 2,4,5-T (UG/L) (39740)	TOTAL SILVEX (UG/L) (39760)
NOV 10...	.00	.00	.01	.00	.00	.00	.00	0	.00	.09	.01	.00
FEB 15...	.00	.00	.02	.03	.00	.00	.00	0	.00	.31	.00	.02
MAY 03...	.00	.00	.02	.00	.00	.00	.00	0	.00	4.6	.04	.20
AUG 23...	.00	.00	.01	.00	.00	.00	.03	0	.00	.21	.03	.02

06803530 ROCK CREEK NEAR CERESCO, NE

LOCATION.--Lat 41°00'56", long 96°32'39", in NE1/4NE1/4 sec.17, T.12 N., R.8 E., Lancaster County, Hydrologic Unit 10200203, on right bank 10 ft (3 m) downstream from bridge on east-west county road and 5.7 mi (9.2 km) southeast of Ceresco.

DRAINAGE AREA.--119 mi² (308 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1970 to current year.

REVISED RECORDS.--WDR NE-76-1: 1975(M).

GAGE.--Water-stage recorder. Datum of gage is 1115.18 ft (339.907 m) above mean sea level.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--7 years, 23.5 ft³/s (0.666 m³/s), 17,030 acre-ft/yr (21.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,120 ft³/s (117 m³/s) May 1, 1972, gage height, 14.2 ft (4.33 m), from floodmark; minimum daily, 0.25 ft³/s (0.007 m³/s) July 13, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s (17.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 9	1200	1840	52.1	10.04	3.060	Aug. 31	0530	2150	60.9	10.74	3.274
Aug. 16	0600	1630	46.2	8.99	2.740	Sept. 3	1530	*2390	67.7	11.53	3.514
Aug. 21	0500	1500	42.5	8.58	2.615						

Minimum discharge, 1.2 ft³/s (0.034 m³/s) July 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	5.4	4.1	3.0	5.6	8.7	6.8	6.0	12	5.2	3.2	46
2	3.1	5.2	4.0	3.3	6.8	10	7.0	7.8	10	4.4	2.7	112
3	3.3	5.1	5.0	3.5	9.0	15	7.4	8.5	10	3.4	2.7	1490
4	3.5	4.1	4.7	3.3	8.0	14	12	7.6	8.9	2.5	2.4	250
5	3.7	4.9	4.5	3.0	7.0	13	9.6	6.5	8.2	2.0	2.6	35
6	3.2	5.1	4.0	3.4	7.0	11	7.9	5.4	6.6	1.6	3.3	25
7	3.2	5.1	4.5	3.6	6.0	9.0	7.1	4.9	6.2	1.2	2.8	20
8	3.4	5.1	5.2	3.4	7.2	8.2	8.0	23	6.2	1.3	2.3	16
9	3.3	5.6	5.8	2.7	8.2	8.4	6.8	7.2	5.6	1.6	800	13
10	3.0	4.9	4.5	2.4	10	8.8	6.7	4.7	4.8	1.4	43	10
11	3.7	4.3	5.0	2.6	10	11	6.4	3.9	4.7	34	11	9.8
12	2.5	5.4	4.9	3.3	20	13	6.6	3.6	5.5	12	9.2	12
13	3.7	5.4	5.4	4.3	17	11	14	3.5	6.7	5.0	6.8	12
14	3.8	5.4	6.6	5.0	14	9.2	12	3.5	7.5	3.5	12	10
15	3.4	6.2	6.0	3.2	12	8.6	7.7	3.6	6.9	4.2	36	9.4
16	3.6	7.0	6.4	2.1	10	7.8	6.7	3.5	6.3	4.8	709	9.5
17	3.7	8.4	7.0	3.4	10	7.4	7.7	5.1	6.1	4.7	30	10
18	4.4	6.1	8.0	3.6	12	6.8	7.9	4.1	6.3	4.0	13	9.5
19	5.2	4.9	5.4	3.9	15	8.1	9.4	3.4	6.4	3.2	11	8.4
20	5.0	4.3	4.3	4.5	15	12	10	5.6	6.1	2.9	11	8.0
21	4.5	5.4	4.0	4.3	15	11	10	119	7.1	5.2	455	8.3
22	4.6	5.6	5.6	5.0	16	9.6	7.0	95	9.0	16	16	7.9
23	4.4	6.2	5.2	4.0	17	8.0	6.3	13	7.0	5.5	11	16
24	3.5	6.4	6.4	5.4	15	7.7	5.7	8.7	132	5.7	10	24
25	2.9	5.8	5.8	5.2	13	7.3	5.4	8.4	10	75	9.2	8.9
26	3.8	4.9	6.4	5.6	10	15	5.4	53	6.5	11	9.1	7.0
27	4.2	4.4	7.2	6.0	9.6	8.2	5.2	212	5.9	6.2	8.6	6.7
28	4.2	3.0	6.0	4.0	10	14	5.8	78	5.5	4.9	8.4	6.7
29	4.7	3.5	5.0	4.7	---	25	5.3	27	5.6	5.0	8.1	7.1
30	5.3	3.9	4.0	5.2	---	9.4	7.3	17	6.0	4.1	16	39
31	5.4	---	2.3	5.0	---	7.3	---	14	---	3.4	1120	---
TOTAL	119.5	157.0	163.2	121.9	315.4	323.5	231.1	766.5	335.6	244.9	3305.4	2247.2
MEAN	3.85	5.23	5.26	3.93	11.3	10.4	7.70	24.7	11.2	7.90	109	74.9
MAX	5.4	8.4	8.0	6.0	20	25	14	212	132	75	1120	1490
MIN	2.5	3.0	2.3	2.1	5.6	6.8	5.2	3.4	4.7	1.2	2.3	6.7
AC-FT	237	311	324	242	626	642	458	1520	666	486	6710	4460

CAL YR 1976 TOTAL 2856.05 MEAN 7.81 MAX 77 MIN .25 AC-FT 5670
WTR YR 1977 TOTAL 8411.20 MEAN 23.0 MAX 1490 MIN 1.2 AC-FT 16680

06803530 ROCK CREEK NEAR CERESCO, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	FECAL COLI- FORM .7UM-MF (COL./ 100 ML) (31625)	STREP- TOCOCCI (COL- ONIES PER 100 ML) (31679)
DEC										
20...	1345	4.3	1550	8.0	.5	7	20	14.2	320	1100
MAR										
03...	1000	15	1900	8.2	.5	25	50	12.7	1830	960
APR										
29...	1200	5.4	1430	8.5	17.0	27	10	9.4	--	--
JUN										
14...	1130	7.5	1190	8.4	23.5	25	60	11.3	1130	890
24...	1100	176	348	7.2	22.5	500	35	5.4	B38000	--
AUG										
09...	1650	1230	145	6.9	22.0	400	1800	4.0	94000	--

DATE	FECAL STREP- TOCOCCI KF AGAR (COL. PER 100 ML) (31673)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)
DEC									
20...	--	300	0	87	21	210	5.2	7.4	371
MAR									
03...	--	300	63	82	22	280	7.1	8.2	283
APR									
29...	--	270	0	74	21	200	5.3	8.1	340
JUN									
14...	--	240	0	68	18	170	4.7	7.8	310
24...	B133000	68	18	19	4.9	35	1.9	10	60
AUG									
09...	F370000	30	1	9.2	1.7	13	1.0	6.9	35

DATE	CAR- BONATE (CO3) (MG/L) (00445)	ALKA- LINITY AS CACO3 (MG/L) (00410)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED SOLIDS (TONS PER AC-FT) (70303)
DEC									
20...	0	304	150	240	.4	27	934	926	1.27
MAR									
03...	0	232	210	360	.3	18	1110	1120	1.51
APR									
29...	0	280	110	220	.5	18	837	819	1.14
JUN									
14...	1	260	110	170	.6	19	704	717	.96
24...	0	49	31	56	.3	9.8	197	196	.27
AUG									
09...	0	29	9.5	8.8	.3	5.1	88	72	.12

06803530 ROCK CREEK NEAR CERESCO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO-GEN (N) (MG/L) (00605)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L) (00625)	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)
DEC									
20...	10.8	.86	.22	.63	.85	1.7	.28	.24	250
MAR									
03...	45.0	.60	.44	1.5	1.9	2.5	.49	.31	230
APR									
29...	12.2	.39	3.8	.40	4.2	4.6	.55	.49	290
JUN									
14...	14.3	.08	.05	1.7	1.7	1.8	.51	.23	250
24...	93.6	4.6	.22	12	12	17	1.1	.13	60
AUG									
09...	292	.96	.57	11	12	13	2.3	.21	80

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SUS-PENDED SEDI-MENT (MG/L) (80154)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)
JUN											
24...	1055	176	22.5	6480	3080	61	76	88	98	--	--
JUL											
25...	1430	94	22.0	12100	3070	34	46	61	99	99	100
AUG											
09...	1630	1230	22.0	8710	28900	49	60	85	99	100	--
31...	1100	1730	--	7560	35300	50	62	92	98	--	--

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
JUN												
24...	1055	176	3	59	64	68	73	76	79	85	89	100
AUG												
09...	1630	1230	3	27	30	32	36	46	68	80	88	100
31...	1100	1730	3	32	35	40	48	62	76	94	99	100

06803555 SALT CREEK AT GREENWOOD, NE

LOCATION.--Lat 40°57'56", long 96°27'01", at center of sec.31, T.12 N., R.9 E., Cass County, Hydrologic Unit 10200203, on right bank just downstream from county road bridge, 0.5 mi (0.8 km) west of Greenwood.

DRAINAGE AREA.--1,051 mi² (2,722 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1951 to current year. Records furnished by Corps of Engineers prior to Oct. 1, 1972.

REVISED RECORDS.--WDR NE-71: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,068.14 ft (325.569 m) above mean sea level, datum of 1958. Prior to Nov. 5, 1964, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--25 years (1952-77), 261 ft³/s (7.392 m³/s), 189,100 acre-ft/yr (0.233 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,000 ft³/s (1,160 m³/s) June 28, 1963, gage height, 23.46 ft (7.151 m); maximum gage height, 23.50 ft (7.163 m) Oct. 11, 1973, from floodmark; minimum daily discharge, 14 ft³/s (0.40 m³/s) Jan. 10, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,200 ft³/s (62.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 9	1715	2380	67.4	6.75	2.057
Aug. 16	0830	4650	132	9.38	2.859
Aug. 21	0830	2700	76.5	7.18	2.188
Aug. 31	1000	9380	265	12.97	3.953
Sept. 3	1730	*21500	609	18.43	5.617

Minimum daily discharge, 50 ft³/s (1.42 m³/s) Dec. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	79	86	62	88	91	123	81	156	68	66	1340
2	72	88	94	68	98	101	120	88	124	62	66	839
3	70	84	100	70	118	167	122	129	117	59	68	9610
4	66	86	96	68	118	103	204	115	112	51	70	6200
5	70	83	90	64	110	88	157	99	102	53	156	955
6	70	85	74	68	98	88	130	97	95	58	137	803
7	68	78	70	70	90	89	118	83	102	55	77	287
8	66	76	80	68	100	90	107	106	98	53	68	207
9	66	83	96	58	118	91	100	85	93	51	1070	222
10	68	79	76	60	190	97	89	72	93	51	888	164
11	68	82	88	68	180	112	82	68	91	908	257	138
12	74	80	80	74	190	134	91	67	102	395	137	217
13	72	76	86	80	200	128	182	66	109	163	88	212
14	77	80	94	72	180	109	120	66	99	103	88	212
15	78	80	92	66	170	102	107	70	94	81	213	162
16	72	87	94	56	200	92	116	71	90	88	2710	137
17	66	91	102	72	257	92	136	86	85	70	562	238
18	68	94	110	82	260	91	117	72	97	68	254	875
19	84	95	76	90	242	119	162	66	70	68	137	271
20	81	93	56	94	220	198	176	135	63	58	120	162
21	77	94	62	92	207	137	162	648	94	71	1790	132
22	77	92	66	100	204	116	120	526	228	105	730	117
23	129	100	64	80	204	110	110	285	98	61	179	182
24	89	102	74	86	195	104	97	167	364	58	114	179
25	83	106	70	80	165	99	89	125	187	125	91	154
26	87	100	74	88	186	106	91	183	102	91	79	182
27	84	96	80	100	126	98	83	808	81	98	79	109
28	83	86	76	90	104	175	89	753	79	78	72	95
29	86	74	66	74	---	289	83	719	74	154	68	98
30	88	82	50	78	---	159	83	254	70	181	81	132
31	81	---	54	76	---	183	---	282	---	78	5810	---
TOTAL	2378	2611	2472	2354	4566	3718	3524	6820	3326	3605	15473	23303
MEAN	76.7	87.0	79.7	75.9	163	120	117	207	111	116	499	777
MAX	129	106	110	100	260	289	204	808	364	908	5810	9610
MIN	66	74	50	56	88	88	82	66	63	51	66	95
AC-FT	4720	5180	4900	4670	9060	7370	6990	13530	6600	7150	30690	46220

CAL YR 1976 TOTAL 41700 MEAN 114 MAX 738 MIN 49 AC-FT 82710
WTR YR 1977 TOTAL 73746 MEAN 202 MAX 9610 MIN 50 AC-FT 146300

06803555 SALT CREEK AT GREENWOOD, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1971 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: October 1971 to September 1976 (discontinued).

REMARKS.--Prior to July 1, 1971, sediment records were obtained by the U.S. Corps of Engineers.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 15,900 mg/L May 18, 1974; minimum daily, 5 mg/L Oct. 9, 1971.
SEDIMENT LOADS: Maximum daily, 492,000 tons (447,000 tonnes) Oct. 11, 1973; minimum daily, 1.0 ton (0.9 tonne) Oct. 9, 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SUSPENDED SEDIMENT (MG/L) (80154)	SUSPENDED SEDIMENT DISCHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)
DEC							
01...	1415	87	.5	210	49	--	--
JAN							
24...	1030	85	.5	154	35	--	--
FEB							
09...	1145	113	.5	255	78	--	--
MAR							
01...	1100	90	2.0	98	24	--	--
23...	0900	108	7.0	96	28	--	--
APR							
15...	0925	112	19.5	272	82	--	--
MAY							
03...	1000	97	21.0	163	43	--	--
25...	1000	131	24.0	404	143	--	--
JUN							
15...	1115	100	--	188	51	--	--
JUL							
11...	1355	2080	23.5	3020	17000	42	45
28...	1920	76	23.0	263	54	--	--
AUG							
23...	1210	184	21.5	1510	750	--	--
SEP							
09...	1030	227	22.0	235	144	--	--
27...	1400	122	22.0	205	68	--	--

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM (70346)
DEC						
01...	--	--	--	--	--	--
JAN						
24...	--	--	--	--	--	--
FEB						
09...	--	34	40	45	76	90
MAR						
01...	--	99	99	100	--	--
23...	--	97	--	--	--	--
APR						
15...	--	50	50	65	97	100
MAY						
03...	--	--	--	--	--	--
25...	--	88	--	--	--	--
JUN						
15...	--	88	93	--	--	--
JUL						
11...	65	93	95	97	98	100
28...	--	81	81	82	90	96
AUG						
23...	--	--	--	--	--	--
SEP						
09...	--	76	--	--	--	--
27...	--	90	--	--	--	--

06803555 SALT CREEK AT GREENWOOD, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
FEB												
09...	1145	113	14	26	26	45	82	96	99	100	--	--
MAR												
23...	0900	108	9	1	1	15	61	88	97	98	99	100
APR												
15...	0925	112	7	20	26	37	79	88	99	100	--	--
MAY												
25...	1000	131	--	0	--	18	78	95	99	100	--	--
JUN												
15...	1115	190	4	14	17	25	60	82	94	96	99	100
JUL												
11...	1355	2090	3	42	47	58	88	98	100	--	--	--
28...	1020	76	10	34	38	50	83	94	98	100	--	--
AUG												
23...	1210	184	7	--	0	17	80	95	99	100	--	--
SEP												
09...	1030	227	14	0	1	10	61	85	93	97	100	--
27...	1400	122	8	--	0	6	61	92	96	99	100	--

06803565 SALT CREEK ABOVE ASHLAND, NE

LOCATION.--Lat 41°01'34", long 96°24'22", in NW1/4NW1/4 sec.10, T.12 N., R.9 E., Saunders County, Hydrologic Unit 10200203, at county road bridge 2 miles southeast of Ashland.

DRAINAGE AREA.--1,110 sq mi.

PERIOD OF RECORD.--Water year 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	DIS-SOLVED OXYGEN (MG/L) (00300)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLI-FORM (COL. PER 100 ML) (31616)	FECAL COLI-FORM .7UM-MF (COL./ 100 ML) (31625)	STREP-TOCOCCI (COL-ONIES PER 100 ML) (31679)	FECAL STREP-TOCOCCI KF AGAR (COL. PER 100 ML) (31673)
OCT												
19...	1015	101	7120	6.8	4.5	10	8.1	8.8	90	--	350	--
NOV												
09...	1230	90	7050	7.7	7.0	5	10.8	10	--	8	144	--
DEC												
21...	1215	46	7670	7.8	.5	8	10.1	6.6	--	6	600	--
JAN												
19...	1330	91	7000	7.5	.5	10	4.7	6.0	--	410	340	--
FEB												
08...	1200	117	6570	7.4	.2	9	4.8	3.0	--	100	180	--
MAR												
01...	1230	100	6190	7.8	2.5	10	11.3	4.6	--	8	20	--
APR												
13...	0915	124	4130	7.8	15.0	25	7.0	10	--	470	660	--
MAY												
03...	1045	109	5900	7.7	19.0	35	5.9	22	--	900	7800	--
JUN												
15...	1010	98	7400	8.4	24.0	50	7.6	9.2	--	8400	B1100	--
JUL												
06...	1055	70	7500	8.8	28.0	20	10.1	11	--	113	--	148
AUG												
23...	0900	175	1450	7.7	19.5	920	6.1	17	--	B19670	--	B53400
SEP												
08...	1015	220	3100	7.9	22.5	110	6.0	17	--	1700	--	760

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO-GEN (N) (MG/L) (00605)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L) (00625)	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L) (00666)
OCT											
19...	2000	4230	5.75	1150	2.4	4.7	6.3	11	13	3.1	3.1
NOV											
09...	--	4240	5.77	1030	4.3	2.9	1.9	4.8	9.1	2.6	--
DEC											
21...	2100	4430	6.02	550	1.4	3.7	.70	4.4	5.8	.95	.95
JAN											
19...	1900	4130	5.62	1010	1.0	9.0	.00	9.0	10	4.2	--
FEB											
08...	2000	3870	5.26	1220	1.1	7.5	.30	7.8	8.9	3.0	--
MAR											
01...	1700	3460	4.71	934	1.2	3.6	.00	3.6	4.8	2.5	2.4
APR											
13...	1500	3340	4.54	1120	1.5	4.1	.70	4.8	6.3	3.0	--
MAY											
03...	1700	3440	4.68	1010	1.2	3.3	1.1	4.4	5.6	2.9	--
JUN											
15...	1900	3960	5.39	1050	1.9	1.6	3.0	4.6	6.5	3.8	3.3
JUL											
06...	2100	5140	6.99	971	2.4	.58	2.1	2.7	5.1	4.3	--
AUG											
23...	440	995	1.35	470	1.6	.95	11	12	14	2.1	--
SEP											
08...	860	1770	2.41	1050	1.6	1.1	.30	1.4	3.0	7.0	6.9

06803565 SALT CREEK ABOVE ASHLAND, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)
DEC									
21...	1215	10	420	49	110	35	1500	32	16
MAR									
01...	1230	11	330	47	87	27	1200	29	14
JUN									
15...	1010	25	360	96	94	30	1400	32	18
SEP									
08...	1015	60	230	60	65	17	610	17	14

DATE	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED BORON (B) (UG/L) (01020)
DEC								
21...	451	0	370	350	.7	26	4360	450
MAR								
01...	343	0	281	290	.6	21	3510	580
JUN								
15...	320	1	260	350	1.0	14	3970	660
SEP								
08...	210	0	170	180	.5	20	1870	330

06804000 WAHOO CREEK AT ITHACA, NE

LOCATION.--Lat 41°08'40", long 96°32'10", in NW1/4NW1/4 sec.33, T.14 N., R.8 E., Saunders County, Hydrologic Unit 10200203, on right bank 16 ft (5 m) downstream from bridge on State Highway 63 and 0.5 mi (0.8 km) south of Ithaca.

DRAINAGE AREA.--271 mi² (702 km²), of which 268 mi² (694 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1949 to current year.

REVISED RECORDS.--WDR NE-71: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,110.48 ft (338.474 m) above mean sea level. Prior to Oct. 27, 1959, nonrecording gages at same site and datum. Oct. 28, 1959, to Feb. 22, 1961, nonrecording gage at site 1.5 mi (2.4 km) upstream at datum 8.21 ft (2.502 m) higher.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--28 years, 74.8 ft³/s (2.118 m³/s), 54,190 acre-ft/yr (66.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 77,400 ft³/s (2,190 m³/s) June 24, 1963, gage height, 22.93 ft (6.989 m), from rating curve extended above 13,000 ft³/s (368 m³/s) on basis of indirect measurement of peak flow; minimum daily, 3.3 ft³/s (0.093 m³/s) June 11, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since about 1910, 23.22 ft (7.077 m), from floodmark, Aug. 2, 1959, discharge, 45,300 ft³/s (1,280 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 10	0200	2620	74.2	18.58	5.663	Aug. 31	2400	4850	137	21.84	6.657
Aug. 16	1715	2640	74.8	18.61	5.672	Sept. 4	0230	*5110	145	a22.00	6.706
Aug. 21	1330	2550	72.2	18.26	5.566						

a gage height observed

Minimum daily discharge, 6.6 ft³/s (0.19 m³/s) Dec. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	16	13	10	18	20	20	17	43	15	11	2430
2	12	16	12	12	21	21	19	17	30	15	11	231
3	12	16	13	13	22	25	20	18	27	15	11	1520
4	12	15	12	13	20	23	24	19	26	14	13	3920
5	12	16	11	12	18	21	23	129	25	13	14	903
6	12	16	10	13	18	21	22	80	25	12	20	177
7	12	15	9.0	13	15	21	20	25	24	11	31	124
8	12	14	9.6	12	18	22	19	123	24	8.9	21	82
9	12	16	11	11	22	23	18	169	24	9.1	1160	72
10	12	16	9.2	10	21	24	17	34	24	8.2	1050	64
11	12	15	9.6	12	20	25	17	25	25	26	73	62
12	13	14	9.4	13	19	31	17	22	25	62	43	72
13	13	14	9.6	15	18	31	26	20	41	23	36	70
14	13	14	9.6	16	18	26	31	19	43	15	33	58
15	12	14	9.6	15	18	23	24	19	29	160	51	39
16	13	16	9.4	12	18	21	19	19	25	55	1680	36
17	13	17	9.6	15	18	21	18	23	25	36	203	40
18	13	18	9.6	17	18	20	19	36	54	24	64	46
19	15	18	9.4	19	19	21	20	22	31	15	47	40
20	15	18	13	20	18	23	26	26	24	11	41	32
21	15	19	12	19	19	23	21	280	25	17	1380	31
22	16	20	11	18	20	23	21	507	42	20	136	31
23	18	20	11	16	22	21	19	64	36	16	60	112
24	18	21	11	16	22	20	18	34	25	14	47	114
25	18	21	10	17	22	20	17	28	22	91	41	64
26	20	20	9.0	16	21	20	17	33	20	47	39	36
27	22	17	8.6	15	19	19	17	128	19	15	37	34
28	19	15	8.4	10	20	23	17	251	17	12	34	31
29	20	12	8.0	11	---	33	17	50	16	12	32	31
30	19	13	7.6	12	---	30	16	37	16	9.7	33	55
31	18	---	6.6	12	---	22	---	205	---	9.9	2400	---
TOTAL	455	492	311.8	435	542	717	599	2479	832	811.8	8852	10553
MEAN	14.7	16.4	10.1	14.0	19.4	23.1	20.0	80.0	27.7	26.2	286	352
MAX	22	21	13	20	22	33	31	507	54	160	2400	3920
MIN	12	12	6.6	10	15	19	16	17	16	8.2	11	31
AC-FT	902	976	618	863	1080	1420	1190	4920	1650	1610	17560	20930

CAL YR 1976 TOTAL 7679.1 MEAN 21.0 MAX 311 MIN 6.6 AC-FT 15230
WTR YR 1977 TOTAL 27079.6 MEAN 74.2 MAX 3920 MIN 6.6 AC-FT 53710

06804495 SILVER CREEK NEAR WAHOO, NB

LOCATION.--Lat 41°12'22", long 96°32'37", in NE1/4NE1/4NE1/4 sec.8, T.14 N., R.8 E., Saunders County, Hydrologic Unit 10200203, at bridge on county road 3.9 miles east of intersection of First Street and U.S. Highway 77 in Wahoo.

PERIOD OF RECORD.--Water year 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM (COL. PER 100 ML) (31616)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)
OCT											
18...	1030	2.3	472	8.3	4.0	5	11.4	1.5	120	--	260
NOV											
09...	0945	2.8	655	7.5	5.0	7	11.4	2.2	--	87	340
DEC											
20...	1215	2.5	551	7.8	.5	15	12.0	6.6	--	200	1400
JAN											
19...	1015	31	590	7.8	.5	10	9.2	6.5	--	72000	1100
FEB											
08...	1400	2.9	525	8.0	8.0	18	10.3	5.1	--	<3	380
28...	1345	2.6	441	8.2	9.5	11	--	1.8	--	6	100
APR											
12...	1130	3.2	440	8.6	20.0	5	17.9	3.8	--	140	180
MAY											
02...	1245	1.8	385	8.8	22.5	5	22.5	5.1	--	217	296
JUN											
14...	0925	2.9	510	7.8	19.0	10	8.6	5.3	--	1430	2400
JUL											
06...	1000	2.0	529	8.3	25.0	6	8.4	3.8	--	220	--
AUG											
09...	1325	490	75	7.1	21.0	700	5.9	7.0	--	35000	--
SEP											
09...	1415	11	355	7.8	22.5	25	8.3	3.0	--	280	--

DATE	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)
OCT										
18...	--	5.8	299	.41	.05	.09	.14	1.5	.22	.21
NOV										
09...	--	5.5	326	.44	.00	.51	.51	2.4	.24	--
DEC										
20...	--	14	--	.46	1.8	.60	2.4	4.8	.36	.20
JAN										
19...	--	18	336	.46	4.0	.00	4.0	5.7	.35	--
FEB										
08...	--	15	309	.42	2.2	.40	2.6	4.2	.45	--
28...	--	5.1	--	.37	.08	.40	.48	1.7	.28	.28
APR										
12...	--	4.9	288	.39	.01	.73	.74	1.2	.27	--
MAY										
02...	--	4.6	259	.35	.03	.12	.15	.62	.30	--
JUN										
14...	--	42	--	.49	.04	.41	.45	1.2	.29	.22
JUL										
06...	1460	22	300	.41	.09	.49	.58	1.4	.42	--
AUG										
09...	E275000	1.3	--	.05	.23	8.1	8.3	9.0	2.7	.13
SEP										
09...	620	10	220	.30	.12	--	--	--	.40	--

06804495 SILVER CREEK NEAR WAHOO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)
DEC 20...	1215	5	220	0	63	16	25	.7	9.6	286
FEB 28...	1345	12	190	0	56	13	20	.6	7.9	245
JUN 14...	0925	9	220	10	63	16	30	.9	9.0	256
AUG 09...	1325	400	17	3	5.1	1.0	2.0	.3	5.0	18

DATE	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)
DEC 20...	0	235	38	.4	34	337	--	60	--	--
FEB 28...	0	201	21	.4	26	271	6	60	1	0
JUN 14...	0	210	43	.5	28	361	--	70	--	--
AUG 09...	0	15	7.7	.2	3.6	36	2	40	3	0

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUS-PENDED MERCURY (HG) (UG/L) (71895)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)
DEC 20...	--	--	--	--	--	--	--	--	--	--
FEB 28...	4	100	0	200	.1	.1	.0	0	0	0
JUN 14...	--	20	--	130	--	--	--	--	--	--
AUG 09...	8	200	18	50	.2	.2	.0	1	0	50

06805500 PLATTE RIVER AT LOUISVILLE, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°00'55", long 96°09'28", in NE1/4NE1/4 sec.14, T.12 N., R.11 E., Sarpy County, Hydrologic Unit 10200202, on the left bank at the upstream side of bridge on Nebraska Highway 50, 1 mi (2 km) north of Louisville.

DRAINAGE AREA.--85,800 mi² (222,200 km²), approximately, of which about 71,000 mi² (183,900 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1953 to current year. October 1961 to September 1973 published as Platte River at South Bend.

REVISED RECORDS.--WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,007.10 ft (306.964 m) above mean sea level. Dec. 5, 1961 to Sept. 30, 1973, at site 7 mi (11 km) upstream at datum 31.43 ft (9.580 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--24 years, 5,620 ft³/s (159.2 m³/s), 4,072,000 acre-ft/yr (5.02 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 124,000 ft³/s (3,510 m³/s) Mar. 30, 1960, gage height, 12.45 ft (3.795 m); minimum daily, 131 ft³/s (3.71 m³/s) Sept. 3, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known since at least 1881, 124,000 ft³/s (3,510 m³/s) Mar. 30, 1960, gage height, 12.45 ft (3.795 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27,200 ft³/s (770 m³/s) Sept. 4, gage height, 7.27 ft (2.216 m); minimum daily, 500 ft³/s (14.2 m³/s) Nov. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1930	2800	600	2200	3700	6970	7320	6130	9700	3460	2020	13700
2	2110	2060	1000	2300	3900	6500	7280	5650	12600	3220	1020	10900
3	1940	2980	1500	2250	4100	6020	7010	5100	8650	2750	894	15800
4	1980	2960	1650	2200	4200	5160	9540	5640	7670	2440	1290	22300
5	1870	2870	1400	2200	3800	5690	9350	6190	7170	1880	1150	20600
6	1950	3140	1350	2150	3700	5650	7810	6360	5940	1960	1360	10500
7	2000	2780	1300	2100	3800	5160	7600	5660	5550	1410	1630	7330
8	1610	3060	1300	2000	3900	5580	7040	5890	5090	1400	1860	5710
9	1890	2800	1500	1950	4000	5240	5990	6320	5080	1290	5330	4710
10	2020	2920	1600	1900	4200	5190	5910	7060	4390	1260	6890	4330
11	2230	2900	1900	1800	4300	5650	5610	6350	3700	1710	5510	3310
12	2280	2890	2200	1900	4600	5800	5100	6740	3960	3750	4560	3370
13	3200	3060	2600	2400	4500	6080	4850	6120	3790	2540	3080	3700
14	2990	1530	2900	3300	4400	8800	6090	6000	3660	3770	3170	3570
15	2330	2380	3100	2600	4300	7610	5420	4910	4010	3720	3210	6070
16	2220	3090	3500	2400	4500	6760	5970	4820	3790	3640	6550	4870
17	2120	3170	3700	2500	4600	6120	9310	4450	4650	3660	7660	4610
18	1670	3030	3700	2700	4700	6950	6860	4990	5230	3600	6560	4600
19	1890	3450	3600	2800	4900	5760	6560	5570	6890	2080	5690	3600
20	2270	4030	3200	2900	5000	5520	6690	5290	5990	1890	5060	4330
21	2380	3810	2900	3000	5600	6700	6550	5450	5190	1560	5520	3320
22	2050	3660	3100	3000	7600	6890	8680	10800	5080	2000	6660	3760
23	2030	3900	3200	3100	10000	6420	11600	17100	4780	1670	4320	3510
24	2550	2750	3100	3200	11500	6280	10700	15000	4880	2080	3990	6470
25	2690	3660	3000	3200	11000	6480	9940	11200	6490	2720	3880	3730
26	2670	3720	3100	3200	10600	5630	8010	8500	5470	3230	3850	3600
27	2940	2500	3300	3200	9200	5810	8160	12400	5230	2600	4240	3390
28	3230	1600	3100	3100	7900	6100	7750	17600	4790	3080	5800	3920
29	3090	800	2900	3200	---	6420	7090	18300	4890	2390	6670	3500
30	2760	500	2600	3400	---	6580	6770	13000	4440	1780	5330	4040
31	2910	---	2200	3300	---	7320	---	10600	---	1250	11800	---
TOTAL	71780	85540	75900	81450	158300	192980	222360	255260	168750	75270	137054	195150
MEAN	2315	2851	2448	2627	5654	6225	7412	8234	5625	2428	4421	6505
MAX	3230	4030	3700	3400	11500	8800	11600	18300	12600	3770	11800	22300
MIN	1610	500	600	1800	3700	5160	4850	4450	3660	1250	894	3310
AC-FT	142400	169700	150500	161600	314000	382800	441100	506300	334700	149300	271800	387100

CAL YR 1976 TOTAL 1327869 MEAN 3628 MAX 17300 MIN 131 AC-FT 2634000
WTR YR 1977 TOTAL 1719774 MEAN 4712 MAX 22300 MIN 500 AC-FT 3411000

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1972 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1976 to current year.
WATER TEMPERATURES: November 1976 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1971 to current year.

REMARKS.--Prior to July 1, 1971, sediment records were obtained by the U.S. Corps of Engineers.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,450 micromhos Sep. 1, 1976; minimum daily, 272 micromhos Aug. 17, 1977.
WATER TEMPERATURES: Maximum, 36°C July 26, 1977; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 11,600 mg/L May 19, 1976; minimum daily, 60 mg/L July 19, 1976.
SEDIMENT LOADS: Maximum daily, 789,000 tons (716,000 tonnes) May 19, 1976; minimum daily, 64 tons (58 tonnes) July 19, 1976.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,030 micromhos Dec. 1; minimum daily, 272 micromhos Aug. 16.
WATER TEMPERATURES: Maximum, 36.0°C July 26; minimum, 0.0°C on many days during winter period.
SEDIMENT CONCENTRATIONS: Maximum daily, 8,030 mg/L May 20; minimum daily, 75 mg/L Feb. 20.
SEDIMENT LOADS: Maximum daily, 424,000 tons (382,000 tonnes) May 20; minimum daily, 284 tons (258 tonnes) Dec. 1.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)
OCT 27...	51	12	100	3.3	8.0	186	0	153	74	120
NOV 22...	49	11	63	2.1	7.6	179	0	147	68	61
DEC 15...	58	14	50	1.5	9.6	223	0	183	88	54
JAN 12...	67	15	66	2.0	9.8	260	0	213	96	99
FEB 02...	50	13	50	1.7	8.0	208	0	171	79	65
MAR 08...	45	9.2	45	1.6	7.5	169	0	139	63	36
APR 06...	56	13	50	1.6	8.0	180	0	150	109	47
MAY 02...	57	13	53	1.6	11	200	0	166	90	36
JUN 01...	50	11	45	1.5	11	170	0	140	79	38
JUL 06...	53	11	60	2.0	10	200	0	160	58	60
AUG 01...	45	9.3	36	1.3	9.8	190	0	140	37	37
SEP 14...	51	12	100	3.3	11	200	0	160	79	130

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	FECAL COLIFORM, .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)
OCT 27...	1030	2700	608	7.8	5.0	40	490	160	--	180	26
NOV 22...	1045	3530	621	8.1	1.0	35	17	64	--	170	21
DEC 15...	1200	3140	676	7.8	1.0	15	28	20	--	200	20
JAN 12...	1200	1900	890	8.6	.5	7	410	60	--	230	16
FEB 02...	1300	3000	604	7.8	.0	20	290	86	--	190	10
MAR 08...	1000	5070	520	7.6	11.0	65	12	360	--	150	12
APR 06...	1230	7700	640	7.8	9.0	110	630	660	--	190	46
MAY 02...	1130	5500	610	8.1	23.5	45	87	120	--	200	32
JUN 01...	1230	10200	476	7.7	22.0	480	6000	14200	--	170	31
JUL 06...	1100	2250	610	8.3	29.0	140	420	--	140	180	16
AUG 01...	1115	2720	675	8.0	26.5	320	600	--	1100	150	8
SEP 14...	1000	3050	700	8.3	22.0	60	650	--	370	180	13

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DISSOLVED FLUORIDE (F) (MG/L) (00950)	DISSOLVED SILICA (SIO2) (MG/L) (00955)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	DISSOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)
OCT 27...	.4	37	517	495	.70	3900	.89	.94	1.8	.42
NOV 22...	.3	35	426	383	.58	4060	.68	.39	1.1	.37
DEC 15...	.4	46	407	410	.55	3470	1.2	1.4	2.6	.33
JAN 12...	.4	46	564	555	.77	2890	.90	.88	1.8	.40
FEB 02...	.4	43	403	399	.55	4290	.82	.24	1.1	.31
MAR 08...	.4	32	332	322	.45	5350	.70	1.3	2.0	.44
APR 06...	.5	28	423	401	.58	8790	.59	1.9	2.5	.54
MAY 02...	.5	27	421	395	.57	6350	.03	1.4	1.4	.30
JUN 01...	.4	24	355	338	.48	9780	.78	4.8	5.6	.94
JUL 06...	.5	32	391	383	.53	2350	.03	2.2	2.2	.60
AUG 01...	.4	32	296	299	.40	2170	.01	3.5	3.5	.77
SEP 14...	.4	29	507	507	.69	4180	--	--	--	--

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	SUSPENDED ARSENIC (AS) (UG/L) (01001)	DISSOLVED ARSENIC (AS) (UG/L) (01000)	TOTAL CADMIUM (CD) (UG/L) (01027)	SUSPENDED CADMIUM (CD) (UG/L) (01026)	DISSOLVED CADMIUM (CD) (UG/L) (01025)	TOTAL CHROMIUM (CR) (UG/L) (01034)	SUSPENDED CHROMIUM (CR) (UG/L) (01031)	DISSOLVED CHROMIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	SUSPENDED COBALT (CO) (UG/L) (01036)
DEC 15...	1200	7	3	4	<10	<9	1	0	0	0	<50	<50
MAR 08...	1000	8	3	5	10	7	3	0	0	0	<50	<49
MAY 02...	1130	10	3	7	<10	<7	3	10	0	10	<50	<50
AUG 01...	1115	15	3	12	10	10	0	10	0	10	<50	<50

DATE	DISSOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	SUSPENDED COPPER (CU) (UG/L) (01041)	DISSOLVED COPPER (CU) (UG/L) (01040)	TOTAL IRON (FE) (UG/L) (01045)	DISSOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	SUSPENDED LEAD (PB) (UG/L) (01050)	DISSOLVED LEAD (PB) (UG/L) (01049)	TOTAL MANGANESE (MN) (UG/L) (01055)	SUSPENDED MANGANESE (MN) (UG/L) (01054)
DEC 15...	0	<10	<8	2	920	40	<100	<98	2	70	50
MAR 08...	1	<10	<6	4	750	90	<100	<99	1	240	200
MAY 02...	0	30	24	6	2700	20	<100	<84	14	180	160
AUG 01...	0	30	26	4	17000	30	<100	<97	3	720	720

DATE	DISSOLVED MANGANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUSPENDED MERCURY (HG) (UG/L) (71895)	DISSOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELENIUM (SE) (UG/L) (01147)	SUSPENDED SELENIUM (SE) (UG/L) (01146)	DISSOLVED SELENIUM (SE) (UG/L) (01145)	TOTAL ZINC (ZN) (UG/L) (01092)	SUSPENDED ZINC (ZN) (UG/L) (01091)	DISSOLVED ZINC (ZN) (UG/L) (01090)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
DEC 15...	20	.4	.2	.2	2	0	2	60	40	20	3.6
MAR 08...	8	.2	.2	.0	2	0	2	40	30	10	8.6
MAY 02...	20	.0	.0	.0	2	0	2	30	30	0	19
AUG 01...	4	.0	.0	.0	1	0	1	70	60	10	--

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL ALDRIN (UG/L) (39330)	ALDRIN IN BOTTOM MA-TERIAL (UG/KG) (39333)	TOTAL CHLOR-DANE (UG/L) (39350)	CHLOR-DANE IN BOTTOM MA-TERIAL (UG/KG) (39351)	TOTAL DDD (UG/L) (39360)	DDD IN BOTTOM MA-TERIAL (UG/KG) (39363)	TOTAL DDE (UG/L) (39365)	DDE IN BOTTOM MA-TERIAL (UG/KG) (39368)	TOTAL DDT (UG/L) (39370)	DDT IN BOTTOM MA-TERIAL (UG/KG) (39373)
NOV 10...	1215	ND	--	ND	--	ND	--	ND	--	ND	--
FEB 02...	1300	ND	--	ND	--	ND	--	--	--	ND	--
MAY 02...	1130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 01...	1115	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	TOTAL DI-AZINON (UG/L) (39570)	DI-AZINON IN BOTTOM MA-TERIAL (UG/KG) (39571)	TOTAL DI-ELDRIN (UG/L) (39380)	DI-ELDRIN IN BOTTOM MA-TERIAL (UG/KG) (39383)	TOTAL ENDRIN (UG/L) (39390)	ENDRIN IN BOTTOM MA-TERIAL (UG/KG) (39393)	TOTAL ETHION (UG/L) (39398)	ETHION IN BOTTOM MA-TERIAL (UG/KG) (39399)	TOTAL HEPTA-CHLOR (UG/L) (39410)	HEPTA-CHLOR IN BOTTOM MA-TERIAL (UG/KG) (39413)	TOTAL HEPTA-CHLOR EPOXIDE (UG/L) (39420)
NOV 10...	ND	--	ND	--	ND	--	ND	--	ND	--	ND
FEB 02...	ND	--	ND	--	ND	--	ND	--	.01	--	ND
MAY 02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 01...	ND	--	ND	--	ND	--	ND	--	ND	--	ND

DATE	HEPTA-CHLOR EPOXIDE IN BOT-TOM MA-TERIAL (UG/KG) (39423)	TOTAL LINDANE (UG/L) (39340)	LINDANE IN BOTTOM MA-TERIAL (UG/KG) (39343)	TOTAL MALA-THION (UG/L) (39530)	MALA-THION IN BOTTOM MA-TERIAL (UG/KG) (39531)	TOTAL METH-OXY-CHLOR (UG/L) (39480)	METHOX-YCHLOR IN BOT-TOM MA-TERIAL (UG/KG) (39481)	TOTAL METHYL PARA-THION (UG/L) (39600)	METHYL PARA-THION IN BOT-TOM MA-TERIAL (UG/KG) (39601)	TOTAL METHYL TRI-THION (UG/L) (39790)	METHYL TRI-THION IN BOT-TOM MA-TERIAL (UG/KG) (39791)
NOV 10...	--	ND	--	ND	--	ND	--	ND	--	ND	--
FEB 02...	--	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 01...	--	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	TOTAL PARA-THION (UG/L) (39540)	PARA-THION IN BOTTOM MA-TERIAL (UG/KG) (39541)	TOTAL TOX-APHENE (UG/L) (39400)	TOX-APHENE IN BOTTOM MA-TERIAL (UG/KG) (39403)	TOTAL TRI-THION (UG/L) (39786)	TRI-THION IN BOTTOM MA-TERIAL (UG/KG) (39787)	TOTAL 2,4-D (UG/L) (39730)	TOTAL 2,4,5-T (UG/L) (39740)	TOTAL SILVEX (UG/L) (39760)	TOTAL ATRA-ZINE (UG/L) (39630)
NOV 10...	ND	--	ND	--	ND	--	ND	ND	ND	--
FEB 02...	ND	--	ND	--	ND	--	ND	ND	ND	ND
MAY 02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 01...	ND	--	ND	--	ND	--	--	--	--	--

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	527	508	2030	785	653	372	460	568	450	458	418	348
2	518	446	1270	809	526	366	448	545	394	497	696	309
3	543	432	1380	768	648	415	485	588	405	545	670	315
4	654	441	1280	765	563	448	458	573	385	508	520	327
5	680	433	1340	844	557	480	427	565	516	625	686	328
6	707	425	1260	808	564	415	478	508	515	665	876	320
7	576	433	1140	893	501	460	528	502	575	848	462	365
8	707	427	1040	925	507	440	530	467	565	850	430	388
9	585	438	950	1000	497	468	605	465	536	798	296	438
10	531	440	1040	802	463	484	597	475	537	867	308	448
11	558	464	855	1010	484	463	613	492	585	725	297	498
12	589	445	837	863	433	443	648	458	528	467	337	498
13	473	444	765	708	448	413	668	455	507	447	371	468
14	457	720	747	694	413	374	528	472	715	408	354	475
15	526	522	612	688	431	365	565	453	568	382	374	404
16	562	450	562	636	435	415	578	486	665	382	344	425
17	534	458	570	723	409	463	432	478	532	382	272	448
18	622	462	697	938	378	424	423	487	458	332	304	454
19	598	469	577	745	378	432	418	495	410	480	377	447
20	564	456	662	760	377	489	450	510	410	568	338	498
21	508	426	576	802	393	438	462	437	382	627	345	498
22	647	457	680	670	361	421	447	418	445	508	347	484
23	704	456	626	598	347	421	395	325	432	718	358	478
24	598	543	607	585	344	479	415	318	432	495	370	478
25	470	495	625	603	352	470	487	317	398	438	398	425
26	473	498	581	548	353	515	495	317	404	365	398	538
27	485	468	538	598	358	545	508	317	418	425	403	519
28	428	765	666	635	367	530	520	317	425	348	367	445
29	487	1340	662	562	---	514	552	303	357	395	330	490
30	466	1910	688	637	---	465	565	328	437	348	333	435
31	503	---	789	645	---	477	---	393	---	500	313	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.5	7.0	0.0	0.0	0.0	5.0	9.0	19.5	25.5	29.5	28.5	24.0
2	21.0	10.0	0.0	0.0	2.0	3.0	9.5	26.0	26.0	28.5	30.5	23.0
3	19.0	6.0	0.5	0.0	1.5	4.0	6.0	24.0	26.0	25.0	34.5	21.5
4	17.5	4.5	0.0	0.0	2.0	2.0	6.5	23.0	26.5	26.0	30.0	22.5
5	15.5	4.5	0.5	0.0	2.0	6.0	7.0	23.5	26.0	26.0	29.0	23.0
6	14.0	5.0	0.0	0.0	0.5	5.0	8.0	24.0	27.0	28.0	25.5	23.0
7	9.5	5.5	0.0	0.0	2.0	6.0	9.0	23.0	27.5	28.0	25.5	27.0
8	15.5	6.5	0.0	0.0	1.5	7.5	7.0	24.0	29.0	26.0	29.5	27.5
9	14.5	4.5	0.5	0.0	0.5	11.5	19.5	23.5	24.5	28.0	26.5	24.5
10	11.5	4.5	0.0	0.0	0.5	10.5	16.5	19.5	28.0	26.0	26.0	23.5
11	15.0	2.0	0.0	0.0	0.5	10.5	20.5	22.0	26.0	27.0	27.0	21.0
12	19.5	0.0	0.0	0.0	0.0	10.0	20.5	20.0	28.0	26.0	27.0	22.5
13	18.5	0.0	0.0	1.0	0.0	5.5	19.0	24.0	22.5	28.0	29.0	22.0
14	19.0	7.0	0.5	1.0	0.0	10.0	20.0	23.0	25.0	30.0	22.0	23.5
15	13.5	0.5	0.5	0.5	0.5	11.5	22.0	21.0	26.0	27.0	29.0	22.5
16	5.0	8.5	0.5	0.0	0.5	12.5	22.5	26.5	25.0	28.0	29.5	24.0
17	6.0	5.0	0.5	0.0	0.0	12.0	18.0	24.5	25.0	28.0	22.5	24.5
18	4.5	7.5	2.0	0.5	0.0	12.0	22.0	26.5	26.0	32.0	21.0	21.5
19	4.5	5.0	0.0	1.0	0.0	7.0	20.0	22.0	25.5	30.5	26.0	22.0
20	8.5	0.0	0.0	1.0	0.0	5.5	17.0	24.5	28.5	34.0	26.0	20.0
21	9.0	0.0	0.0	1.0	0.0	6.5	16.5	24.0	22.0	28.5	24.5	20.5
22	10.0	0.0	0.0	1.0	0.5	8.5	16.5	18.0	25.0	34.0	23.5	23.5
23	8.5	1.5	0.0	1.0	0.0	12.0	17.5	23.0	28.0	28.5	27.0	22.0
24	4.5	4.5	0.0	1.0	0.5	13.0	16.0	25.0	32.0	36.0	22.5	19.5
25	7.0	2.0	0.0	1.0	0.5	12.0	18.0	26.0	30.0	28.0	21.5	15.5
26	4.5	4.5	0.5	0.5	0.5	15.0	19.0	26.0	27.0	28.5	27.5	23.5
27	7.5	0.0	0.0	1.0	0.0	12.5	22.0	22.0	31.5	28.5	26.0	23.0
28	6.0	0.0	0.0	0.0	1.0	12.5	22.0	24.0	27.0	26.0	22.5	20.0
29	7.0	1.0	0.0	0.5	---	13.0	22.5	22.5	27.5	32.5	26.5	23.5
30	8.5	0.0	0.0	0.0	---	6.5	18.0	23.5	26.0	28.5	26.5	20.0
31	6.0	---	0.0	0.0	---	8.0	---	24.5	---	28.0	24.5	---

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE TIME	OCT 27,76 0000	NOV 22,76 1045	DEC 15,76 1200	JAN 12,77 1200	FEB 2,77 1300	MAR 8,77 1000
TOTAL CELLS/ML	42000	9300	6000	1600	6700	22000
DIVERSITY: DIVISION	0.3	1.2	1.5	1.5	1.4	0.3
.CLASS	0.3	1.2	1.5	1.7	1.4	0.3
..ORDER	0.3	1.4	2.2	2.5	1.8	0.7
...FAMILY	0.9	1.7	3.0	3.0	3.1	2.8
....GENUS	0.9	1.8	3.2	3.3	3.2	3.2

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHARACIACEAE												
....SCHROEDERIA	--	-	130	1	--	-	--	-	--	-	--	-
...COELASTRACEAE												
....COELASTRUM	--	-	--	-	-	-	--	-	--	-	--	-
...HYDRODICTYACEAE												
....PEDIASTRUM	--	-	--	-	160	3	--	-	--	-	--	-
...MICRACTINIACEAE												
....GOLENKINIA	--	-	--	-	--	-	--	-	--	-	--	-
....MICRACTINIUM	--	-	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	--	-	54	1	15	1	*	0	140	1
....CHODATELLA	--	-	--	-	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	*	0	*	0	--	-	140	1
....OOCYSTIS	--	-	--	-	--	-	--	-	220	3	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	*	0	--	-	--	-	--	-	140	1
....WESTELLA	--	-	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE												
....ACTINASTRUM	--	-	--	-	110	2	31	2	110	2	--	-
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	1200	3	730	8	500	8	260#	16	330	5	550	2
....TETRASTRUM	--	-	--	-	--	-	--	-	--	-	--	-
..TETRASPORALES												
...COCCOMYXACEAE												
....ELAKATOTHRIX	--	-	--	-	--	-	--	-	--	-	--	-
...PALMELLACEAE												
....SPHAEROCYSTIS	--	-	--	-	--	-	61	4	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	--	-	54	1	23	1	--	-	--	-
...PHACOTACEAE												
....PTEROMONAS	--	-	--	-	--	-	--	-	--	-	--	-
..ZYGNEMATALES												
...DESMIDIACEAE												
....SPONDYLOSIUM	--	-	--	-	130	2	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	MAY 2,77		JUN 1,77		JUL 6,77		AUG 1,77		SEP 14,77	
TIME	1130		0000		1100		1115		1400	
ORGANISM	CELLS /ML	PERCENT	CELLS /ML	PERCENT	CELLS /ML	PERCENT	CELLS /ML	PERCENT	CELLS /ML	PERCENT
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..PENNALES										
...NAVICULACEAE										
....ENTOMONEIS	*	0	--	-	--	-	--	-	--	-
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	13000	8	1400	3	3100	4	3900	1	7500	4
....MELOSIRA	--	-	--	-	*	0	2900	1	2500	1
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	*	0	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE										
....AMPHORA	--	-	*	0	--	-	--	-	--	-
....CYMBELLA	--	-	*	0	--	-	*	0	--	-
....RHOPALODIA	--	-	--	-	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	*	0	330	1	--	-	*	0	--	-
....OPEPHORA	--	-	--	-	--	-	*	0	--	-
...FRAGILARIACEAE										
....FRAGILARIA	--	-	17000#	38	9600	14	2900	1	--	-
....SYNEDRA	--	-	--	-	--	-	*	0	3700	2
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	*	0	--	-	*	0	--	-
...NAVICULACEAE										
....ANOMOEONEIS	--	-	*	0	--	-	--	-	--	-
....CALONEIS	--	-	--	-	--	-	--	-	--	-
....DIPLONEIS	--	-	--	-	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	--	-	--	-	--	-
....NAVICULA	--	-	330	1	--	-	*	0	1900	1
....PINNULARIA	*	0	*	0	--	-	*	0	--	-
....STAURONEIS	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....DENTICULA	--	-	--	-	--	-	--	-	--	-
....HANTZSCHIA	--	-	--	-	--	-	--	-	--	-
....NITZSCHIA	7300	4	1500	3	11000#	16	11000	3	3700	2
...SURIRELLACEAE										
....SURIRELLA	--	-	*	0	--	-	*	0	--	-
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...SYNURACEAE										
....SYNURA	--	-	--	-	--	-	--	-	--	-
.BACILLARIOPHYCEAE										
..PENNALES										
...NAVICULACEAE										
....PLAGIOTROPIS	--	-	--	-	--	-	*	0	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROCCOCCALES										
...CHROCCOCCAEAE										
....AGMENELLUM	--	-	--	-	--	-	200000#	58	27000	15
....ANACYSTIS	22000	13	--	-	--	-	*	0	12000	7
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	49000	14	--	-
....ANABAENOPSIS	--	-	--	-	--	-	*	0	--	-
...OSCILLATORIACEAE	--	-	*	0	--	-	--	-	--	-
....OSCILLATORIA	--	-	--	-	15000#	21	7200	2	--	-
...RIVULARIACEAE										
....RAPHIDIOPSIS	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOMONODACEAE										
....CRYPTOMONAS	1100	1	--	-	--	-	--	-	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	BIOMASS CHLOROPHYLL RATIO PERIPHYTON (UNITS) (70950)	CHLOR-A PERIPHYTON CHROMOSPECTMETRIC (MG/M2) (70955)	CHLOR-B PERIPHYTON CHROMOSPECTMETRIC (MG/M2) (70956)
OCT			
27...	6805	.113	.036

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 27,76		NOV 22,76		DEC 15,76		JAN 12,77		FEB 2,77		MAR 8,77	
TIME	0000		1045		1200		1200		1300		1000	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..PENNALES												
...NAVICULACEAE												
....ENTOMONEIS	--	-	--	-	--	-	--	-	--	-	140	1
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	--	-	520	6	110	2	360#	22	920	14	1500	7
....MELOSIRA	--	-	130	1	90	1	46	3	--	-	280	1
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	36	1	--	-	--	-	690	3
....COCCONEIS	--	-	--	-	36	1	*	0	--	-	280	1
....RHOICOSPHENIA	--	-	--	-	--	-	--	-	*	0	--	-
...CYMBELLACEAE												
....AMPHORA	--	-	--	-	--	-	--	-	--	-	--	-
....CYMBELLA	--	-	--	-	--	-	--	-	--	-	--	-
....RHOPALODIA	--	-	--	-	54	1	--	-	54	1	550	2
...DIATOMACEAE												
....DIATOMA	35000#	83	600	6	390	7	--	-	270	4	1400	6
....OPEPHORA	--	-	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE												
....FRAGILARIA	--	-	--	-	380	6	320#	20	980	15	9200#	41
....SYNEDRA	--	-	--	-	--	-	--	-	--	-	280	1
...GOMPHONEMATACEAE												
....GOMPHONEMA	*	0	--	-	36	1	*	0	--	-	690	3
...NAVICULACEAE												
....ANOMOEONEIS	--	-	--	-	--	-	--	-	--	-	--	-
....CALONEIS	--	-	--	-	--	-	--	-	54	1	--	-
....DIPLONEIS	--	-	--	-	*	0	--	-	--	-	280	1
....GYROSIGMA	--	-	*	0	--	-	--	-	--	-	140	1
....NAVICULA	590	1	520	6	230	4	46	3	840	13	2400	10
....PINNULARIA	--	-	52	1	36	1	--	-	--	-	--	-
....STAURONEIS	--	-	*	0	--	-	--	-	--	-	140	1
...NITZSCHIACEAE												
....DENTICULA	--	-	--	-	*	0	--	-	--	-	--	-
....HANTZSCHIA	*	0	--	-	--	-	*	0	--	-	280	1
....NITZSCHIA	4400	11	--	-	430	7	69	4	270	4	1900	9
...SURIRELLACEAE												
....SURIRELLA	*	0	100	1	--	-	23	1	110	2	1200	6
.CHRYSOPHYCEAE												
..CHRYSOMONADALES												
...SYNURACEAE												
....SYNURA	--	-	--	-	--	-	53	3	--	-	--	-
.BACILLARIOPHYCEAE												
..PENNALES												
...NAVICULACEAE												
....PLAGIOTROPIS	--	-	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....AGMENELLUM	--	-	--	-	--	-	31	2	--	-	--	-
....ANACYSTIS	880	2	--	-	880	15	170	11	--	-	--	-
..HORMOGONALES												
...NOSTOCACEAE												
....ANABAENA	--	-	--	-	--	-	--	-	--	-	--	-
....ANABAENOPSIS	--	-	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE	--	-	--	-	--	-	--	-	--	-	--	-
....OSCILLATORIA	--	-	6400#	69	2200#	37	--	-	1400#	21	--	-
...RIVULARIACEAE												
....RAPHIDIOPSIS	--	-	--	-	--	-	--	-	1100#	16	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.CRYPTOPHYCEAE												
..CRYPTOMONIDALES												
...CRYPTOMONODACEAE												
....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-	140	1
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	--	-	--	-	--	-	61	4	--	-	--	-
....TRACHELOMONAS	*	0	52	1	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
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06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	MAY 2,77		JUN 1,77		JUL 6,77		AUG 1,77		SEP 14,77	
TIME	1130		0000		1100		1115		1400	
TOTAL CELLS/ML	170000		45000		69000		340000		190000	
DIVERSITY: DIVISION	1.1		1.0		1.5		1.0		1.2	
.CLASS	1.1		1.0		1.5		1.0		1.2	
..ORDER	1.3		1.3		1.8		1.7		1.3	
...FAMILY	2.5		2.5		2.6		2.1		2.1	
....GENUS	3.2		0.0		3.1		2.3		3.1	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	*	0	--	-
...COELASTRACEAE										
....COELASTRUM	--	-	440	1	1200	2	--	-	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	*	0	--	-	*	0	--	-
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	--	-	--	-	1900	1
....MICRACTINIUM	32000#	18	4200	9	--	-	5400	2	8700	5
...OOCYSTACEAE										
....ANKISTRODESMUS	4500	3	1200	3	2800	4	7500	2	8100	4
....CHODATELLA	*	0	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	23000	13	6700	15	5500	8	8200	2	12000	7
....KIRCHNERIELLA	--	-	--	-	--	-	*	0	1200	1
....OOCYSTIS	4500	3	880	2	610	1	3200	1	--	-
....SELENASTRUM	3900	2	440	1	--	-	*	0	--	-
....TETRAEDRON	*	0	*	0	--	-	--	-	*	0
....WESTELLA	--	-	--	-	610	1	--	-	2500	1
...SCENEDESMACEAE										
....ACTINASTRUM	22000	13	2200	5	8900	13	2900	1	25000	13
....CRUCIGENIA	--	-	--	-	--	-	*	0	--	-
....SCENEDESMUS	34000#	20	6800#	15	10000	15	33000	10	65000#	35
....TETRASTRUM	2200	1	--	-	460	1	--	-	2500	1
..TETRASPORALES										
...COCCOMYXACEAE										
....ELAKATOTHRIX	--	-	--	-	460	1	*	0	--	-
...PALMELLACEAE										
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	1700	1	770	2	*	0	*	0	--	-
...PHACOTACEAE										
....PTEROMONAS	--	-	--	-	--	-	*	0	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....SPONDYLOSIUM	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SUS-PENDED SEDI-MENT (MG/L) (80154)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)
OCT							
13...	1200	2930	10.5	282	2230	--	--
27...	1000	2790	5.0	230	1730	--	--
NOV							
10...	1215	2760	5.5	214	1590	--	--
22...	1045	3530	1.0	304	2900	--	--
DEC							
15...	1200	3160	1.0	163	1390	--	--
FEB							
02...	1300	3940	.0	131	1390	--	--
16...	1245	4570	.5	76	938	--	--
MAR							
08...	1000	6020	11.0	918	14900	--	--
23...	1105	6280	13.0	461	7820	--	--
APR							
06...	1230	7660	9.0	692	14300	--	--
21...	1330	6580	14.0	624	11100	--	--
MAY							
02...	1130	6130	23.5	272	4500	--	--
23...	1420	17100	18.0	6560	303000	50	60
JUN							
01...	1230	10100	22.0	2160	58900	52	59
27...	1045	4770	24.0	1660	21400	56	71
JUL							
06...	1100	2230	29.0	361	2170	--	--
19...	1130	2060	29.0	484	2690	--	--
AUG							
01...	1115	2720	24.5	886	6510	53	68
18...	1230	6660	24.0	2760	49600	55	58
SEP							
02...	1130	10600	--	2440	69800	50	57
14...	1300	3050	22.0	195	1610	--	--
28...	1200	3400	20.0	254	2330	--	--

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT						
13...	--	66	90	97	100	--
27...	--	85	89	94	97	100
NOV						
10...	--	45	47	77	100	--
22...	--	42	48	62	90	97
DEC						
15...	--	33	45	68	100	--
FEB						
02...	--	70	80	90	100	--
16...	--	81	87	96	100	--
MAR						
08...	--	52	58	71	96	99
23...	--	76	84	94	99	100
APR						
06...	--	45	50	69	78	98
21...	--	50	52	60	68	92
MAY						
02...	--	49	56	75	93	100
23...	71	90	92	97	100	--
JUN						
01...	79	92	94	98	100	--
27...	88	97	98	100	--	--
JUL						
06...	--	69	--	--	--	--
19...	--	60	66	92	100	--
AUG						
01...	83	97	98	99	100	--
18...	76	95	96	98	100	--
SEP						
02...	75	90	95	97	100	--
14...	--	70	85	96	100	--
28...	--	68	79	91	100	--

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
FEB												
02...	--	3980	4	--	0	18	53	82	98	99	100	--
16...	--	8570	4	--	1	36	62	88	97	99	100	--
MAR												
08...	--	6070	4	4	34	58	75	95	99	100	--	--
23...	--	6290	6	--	0	18	54	79	97	99	100	--
APR												
06...	1230	7660	4	--	0	19	58	82	96	98	100	--
21...	1330	6580	4	0	6	34	80	94	99	100	--	--
MAY												
02...	--	6130	5	--	0	17	58	78	90	98	100	--
23...	--	17100	5	--	0	14	59	85	95	99	100	--
JUN												
01...	1230	10100	4	0	2	23	67	89	98	99	100	--
27...	1045	8770	4	0	2	21	58	79	94	99	100	--
JUL												
06...	--	2230	4	--	0	5	82	77	90	98	100	--
19...	--	2060	3	--	0	8	38	68	92	99	100	--
AUG												
01...	--	2720	3	--	0	10	50	70	85	96	100	--
18...	--	6660	5	--	0	11	52	82	92	97	99	100
SEP												
02...	--	10600	5	--	0	14	57	86	98	99	100	--
14...	--	5050	3	0	2	34	65	87	93	99	100	--
28...	--	3600	4	0	1	28	72	92	97	99	100	--

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	1930	340	1770	2800	212	1600	600	175	284
2	2110	290	1650	2860	220	1700	1000	297	802
3	1940	250	1310	2980	246	1980	1500	240	972
4	1980	210	1120	2940	260	2060	1450	280	1100
5	1870	210	1060	2870	280	2170	1400	260	983
6	1950	241	1270	3140	320	2710	1350	238	868
7	2000	220	1190	2780	275	2060	1300	220	772
8	1610	185	804	3040	210	1720	1300	190	667
9	1890	175	893	2800	190	1440	1500	180	729
10	2020	173	944	2920	214	1690	1600	145	626
11	2230	165	993	2900	225	1760	1900	185	949
12	2280	160	985	2890	208	1620	2200	340	2020
13	3200	282	2440	3040	205	1680	2600	415	2910
14	2990	355	2870	1530	150	620	2900	285	2230
15	2330	225	1420	2380	240	1540	3100	163	1360
16	2220	192	1150	3090	335	2790	3500	175	1650
17	2120	160	916	3170	250	2140	3700	310	3100
18	1670	147	663	3030	390	3190	3700	266	2660
19	1890	185	944	3450	450	4190	3600	285	2770
20	2270	260	1590	4030	643	7000	3200	312	2700
21	2380	350	2250	3810	480	4940	2900	270	2110
22	2050	340	1880	3660	390	3850	3100	208	1740
23	2030	270	1480	3900	615	6480	3200	215	1860
24	2550	320	2270	2750	510	3790	3100	236	1980
25	2690	280	2030	3660	680	6720	3000	215	1740
26	2670	271	1950	3720	750	7530	3100	162	1360
27	2940	230	1830	2500	670	4520	3300	140	1250
28	3230	310	2700	1600	265	1140	3100	130	1090
29	3090	260	2170	800	360	778	2900	125	979
30	2740	195	1440	500	240	324	2600	142	997
31	2910	190	1490	---	---	---	2200	180	1070
TOTAL	71780	---	47472	85540	---	85732	75900	---	46320

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	2200	203	1210	3700	134	1340	6970	754	14200
2	2300	220	1370	3900	131	1380	6500	665	11700
3	2250	233	1420	4100	104	1150	6020	580	9430
4	2200	230	1370	4200	130	1470	5160	470	6550
5	2200	230	1370	3800	127	1300	5690	725	11100
6	2150	230	1340	3700	125	1250	5650	690	10500
7	2100	230	1300	3800	137	1410	5160	601	8370
8	2000	230	1240	3900	140	1470	5580	860	13000
9	1950	231	1220	4000	200	2160	5240	820	11600
10	1900	210	1080	4200	225	2550	5190	715	10000
11	1800	186	904	4300	175	2030	5650	520	7930
12	1900	235	1210	4600	140	1740	5800	430	6730
13	2400	282	1830	4500	126	1530	6080	500	8210
14	3300	250	2230	4400	115	1370	8800	1130	26800
15	2600	200	1400	4300	113	1310	7610	1480	30400
16	2400	180	1170	4500	100	1220	6760	1180	21500
17	2500	160	1080	4600	315	3910	6120	880	14500
18	2700	140	1020	4700	300	3810	6950	850	16000
19	2800	120	907	4900	115	1520	5740	635	9840
20	2900	175	1370	5000	75	1010	5520	520	7750
21	3000	170	1380	5600	185	2800	6780	570	10400
22	3000	190	1540	7400	525	10500	6890	515	9580
23	3100	134	1120	10000	785	21200	6420	461	7990
24	3200	150	1300	11500	840	26100	6280	435	7380
25	3200	190	1640	11000	1220	36200	6480	400	7000
26	3200	185	1600	10600	1100	31500	5630	355	5400
27	3200	145	1250	9200	854	21200	5810	325	5100
28	3100	140	1170	7900	765	16300	6180	375	6260
29	3200	135	1170	---	---	---	6420	432	7490
30	3400	155	1420	---	---	---	6580	425	7550
31	3300	135	1200	---	---	---	7320	635	12600
TOTAL	81450	---	40831	158300	---	200730	192980	---	342860

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	7320	760	15000	6130	297	4920	9700	2160	56600
2	7200	760	14900	5650	272	4150	12600	3730	128000
3	7010	945	17900	5100	266	3660	8450	1510	35300
4	9540	1480	38100	5640	340	5180	7470	980	20300
5	9350	1310	33100	6190	490	8190	7170	892	17300
6	7810	735	15500	6360	480	8240	5940	760	12200
7	7600	500	10300	5660	340	5200	5550	626	9380
8	7040	400	7600	5890	625	9940	5090	610	8380
9	5990	334	5400	6320	1340	22900	5080	660	9050
10	5910	350	5580	7040	1320	25100	4390	520	6160
11	5610	392	5940	6350	1050	18000	3700	310	3100
12	5100	340	4680	6740	1300	23700	3960	280	2990
13	4850	385	5040	6120	1140	18800	3790	363	3710
14	6090	510	8390	6000	889	14400	3660	400	3950
15	5420	465	6800	4910	665	8820	4810	406	5260
16	5970	1120	18100	4820	425	5530	3790	450	4600
17	9310	1920	48300	4450	365	4390	4650	430	5400
18	6860	1110	20600	4980	375	5040	5230	1400	19800
19	6560	585	10400	5570	650	9780	6890	2550	47400
20	6690	620	11200	5290	810	11600	5900	2030	32400
21	6550	620	11000	5450	1110	16300	5190	1480	20700
22	8480	880	20100	10800	2830	82600	5020	1060	14400
23	11600	915	28700	17100	6120	277000	4780	750	9680
24	10700	665	19200	15000	5000	202000	4880	850	11200
25	9940	530	14200	11200	3250	98300	6490	3120	56000
26	8010	440	9520	8580	1760	40800	5470	2800	41400
27	8160	402	8860	12400	3500	130000	5230	1660	23400
28	7750	375	7850	17600	8830	424000	4790	1120	14500
29	7090	315	6030	18300	6910	346000	4890	1060	14000
30	6770	300	5480	13000	4200	147000	4440	800	9590
31	---	---	---	10600	2880	82400	---	---	---
TOTAL	222360	---	433770	255240	---	2073940	164750	---	647350

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	3460	480	4480	2020	825	4500	13700	2940	107000
2	3220	525	4560	1020	410	1130	10900	2280	67100
3	2750	600	4460	898	240	579	18800	2640	134000
4	2440	490	3230	1290	325	1130	22300	6850	412000
5	1880	415	2110	1150	290	900	20400	2650	146000
6	1960	361	1910	1340	285	1030	10500	1100	31200
7	1410	240	914	1630	370	1630	7330	1010	20000
8	1480	200	799	1860	465	2340	5710	800	12300
9	1290	188	655	5330	1910	31800	4710	480	6100
10	1260	215	731	6890	3200	59500	4330	350	4090
11	1710	365	1690	5510	2000	29800	3310	286	2560
12	3750	675	6830	4560	1730	21300	3370	400	3640
13	2540	425	2910	3880	1480	15500	3700	337	3370
14	3770	660	6720	3170	1140	9760	3570	360	3470
15	3720	600	6030	3210	1090	9450	6070	1480	24300
16	3640	690	6780	6550	2310	45000	4870	920	12100
17	3660	640	6320	7660	3350	69300	4610	957	11900
18	3600	685	6660	6560	2650	46900	4600	1020	12700
19	2080	445	2500	5690	2150	33000	3600	630	6120
20	1490	225	905	5060	1460	19900	4330	790	9240
21	1560	212	893	5520	1880	28000	3320	750	6720
22	2000	535	2890	6660	1180	21200	3760	600	6090
23	1470	385	1530	4320	930	10800	3510	430	4080
24	2080	450	2530	3990	998	10800	4470	720	8690
25	2720	890	6540	3800	1010	10400	3730	420	4230
26	3230	1230	10700	3850	600	6240	3600	370	3600
27	2600	1000	7020	4240	400	4580	3390	320	2940
28	3080	915	7610	5800	810	12700	3920	254	2690
29	2390	635	4100	6470	1000	17500	3500	274	2590
30	1780	465	2230	5330	830	11900	4040	294	3210
31	1250	510	1720	11800	4550	145000	---	---	---
TOTAL	75270	---	118957	137054	---	781569	195150	---	1074070

06806500 WEEPING WATER CREEK AT UNION, NE

LOCATION.--Lat 40°47'35", long 95°54'40", in NW1/4 sec.36, T.10 N., R.13 E., Cass County, Hydrologic Unit 10240001, near left bank on downstream side of pier of bridge on U.S. Highways 73 and 75, 1.5 mi (2.4 km) southeast of Union and 2.8 mi (4.5 km) downstream from South Branch Weeping Water Creek.

DRAINAGE AREA.--241 mi² (624 km²).

PERIOD OF RECORD.--February 1950 to current year.

REVISED RECORDS.--WSP 2118: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 929.72 ft (283.379 m) above mean sea level. Prior to May 14, 1951, nonrecording gage at site 2 mi (3 km) upstream at different datum. May 15, 1951, to Aug. 22, 1968, water-stage recorder for stages above 7.9 ft (2.41 m) and nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--27 years, 78.8 ft³/s (2.232 m³/s), 57,090 acre-ft/yr (70.4 hm³/yr); median of yearly mean discharges, 69 ft³/s (1.954 m³/s), 50,000 acre-ft/yr (61.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,300 ft³/s (1,710 m³/s) May 9, 1950, gage height, 26.80 ft (8.169 m), from floodmark, present site and datum, from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of measurement of peak flow through bridges and over highway embankment; minimum daily, 0.1 ft³/s (0.003 m³/s) Sept. 10-12, 14, 15, 17, 18, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 9	Est1200	4320	122	20.20	6.157	Sept. 3	2345	5540	157	21.54	6.565
Aug. 31	1015	*6350	180	22.35	6.812						

Minimum daily, 0.07 ft³/s (0.002 m³/s) July 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	6.0	9.3	9.0	8.8	13	21	8.0	17	1.8	8.0	331
2	3.3	6.2	9.4	9.8	10	13	20	8.0	11	1.7	8.0	202
3	3.3	6.4	9.9	10	13	15	19	7.4	8.0	1.6	8.0	2200
4	3.3	8.2	10	10	14	15	23	9.0	7.2	1.4	10	1860
5	3.4	7.3	10	9.2	15	15	25	9.6	7.0	1.4	9.0	371
6	3.4	7.2	10	9.6	14	15	21	9.3	6.4	1.1	50	160
7	3.1	7.2	9.7	9.8	11	16	19	9.2	6.0	1.5	10	119
8	3.0	7.1	10	9.4	13	19	18	9.4	5.8	1.4	44	107
9	3.0	7.6	10	8.8	15	16	17	10	5.5	.07	1940	115
10	3.1	9.5	11	8.4	20	17	15	10	5.1	1.3	152	97
11	3.4	7.8	10	8.8	24	20	13	9.9	4.8	10	200	90
12	3.5	7.5	11	9.2	25	22	12	9.3	7.5	1.7	75	116
13	3.6	7.9	11	9.6	25	21	11	8.8	5.0	1.4	26	126
14	3.5	8.5	11	10	24	21	11	8.7	3.8	1.2	11	108
15	3.3	8.7	11	9.4	22	20	12	8.5	3.6	1.5	69	99
16	3.8	9.2	11	8.4	25	19	11	8.7	3.0	4.0	1090	92
17	4.0	9.0	16	8.6	30	20	11	8.4	2.6	3.0	146	118
18	3.7	9.7	19	8.8	27	20	11	7.6	2.6	2.1	54	86
19	4.2	9.7	17	9.3	30	24	13	6.8	2.4	1.9	18	64
20	4.5	10	15	11	33	19	13	6.1	2.5	1.7	7.6	45
21	4.7	11	11	13	36	18	15	6.4	3.0	1.6	7.0	32
22	4.7	11	9.8	15	34	17	15	7.6	4.4	1.6	3.5	27
23	4.8	11	9.9	17	38	17	15	7.2	3.7	1.6	2.2	170
24	4.9	11	10	19	38	16	14	6.4	3.5	2.7	1.8	284
25	4.9	10	11	20	27	15	12	8.3	3.0	389	2.7	136
26	4.8	11	12	21	21	16	8.6	8.9	2.6	21	18	117
27	4.8	10	14	19	16	16	7.8	91	2.6	6.2	16	107
28	4.8	9.3	14	15	13	19	8.6	109	2.3	4.0	19	100
29	5.0	8.5	10	14	---	27	8.8	89	2.0	1000	12	99
30	5.6	8.5	9.0	9.0	---	31	7.6	66	1.9	110	25	99
31	5.8	---	8.2	9.0	---	29	---	26	---	9.0	3320	---
TOTAL	124.4	262.8	350.2	356.1	621.8	581	427.6	650.5	146.6	1589.27	7422.8	7675
MEAN	4.01	8.76	11.3	11.5	22.2	18.7	14.3	21.2	4.89	51.3	239	256
MAX	5.8	11	19	21	38	31	25	109	17	1000	3320	2200
MIN	3.0	6.0	8.2	8.4	8.8	13	7.6	6.1	1.9	.07	1.8	27
AC-FT	247	521	695	706	1230	1150	848	1310	291	3150	14720	15220

CAL YR 1976 TOTAL 9343.00 MEAN 25.5 MAX 390 MIN 1.7 AC-FT 18530
WTR YR 1977 TOTAL 20216.07 MEAN 55.4 MAX 3320 MIN .07 AC-FT 40100

06807000 MISSOURI RIVER AT NEBRASKA CITY, NE
(National stream-quality accounting network station)

LOCATION.--Lat 40°40'55", long 95°50'48", in NW1/4NE1/4 sec.9, T.8 N., R.14 E., Otoe County, Hydrologic Unit 10240001, on right bank 0.7 mi (1.1 km) upstream from Waubonsie Highway Bridge at Nebraska City, and at mi 562.6 (905.2 km).

DRAINAGE AREA.--410,000 mi² (1,062,000 km²), approximately. The 3,959 mi² (10,254 km²) in Great Divide basin are not included.

PERIOD OF RECORD.--August 1929 to current year. Gage-height records collected in this vicinity from August 1878 to December 1899 are contained in reports of Missouri River Commission.

REVISED RECORDS.--WSP 761: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 905.36 ft (275.954 m) above mean sea level, datum of 1929, supplementary adjustment of 1954. See WSP 1918 or 1919 for history of changes prior to Apr. 1, 1963.

REMARKS.--Records good. Flow partly regulated by upstream main-stem reservoirs. Corps of Engineers gage height telemeter at station. Records of chemical and biological analyses, and water temperatures for the current year are published in WDR IA-77.

AVERAGE DISCHARGE.--48 years, 35,160 ft³/s (995.7 m³/s), 25,470,000 acre-ft/yr (31.4 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 414,000 ft³/s (11,700 m³/s) Apr. 19, 1952; maximum gage height, 27.66 ft (8.431 m) Apr. 18, 1952; minimum discharge, 1,600 ft³/s (45.3 m³/s) Dec. 31, 1946, discharge measurement; minimum gage height observed, -0.28 ft (-0.085 m) Dec. 24, 1960, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 64,100 ft³/s (1,820 m³/s) Sept. 1, gage height, 13.73 ft (4.185 m); maximum gage height, 17.37 ft (5.294 m) Feb. 13, backwater from ice; minimum daily discharge, 13,000 ft³/s (368 m³/s) Jan. 31; minimum gage height, 4.79 ft (1.460 m) Jan. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41300	40000	36400	23200	14000	24600	37900	38200	41600	37900	37500	57600
2	41100	40400	37700	23200	15000	23800	38400	38600	42000	36400	38200	52000
3	41100	40400	40000	23600	15800	23800	40800	39000	42300	36400	38200	49600
4	41600	40600	39500	23300	17800	23400	41600	38600	39500	36400	38400	58600
5	41300	40600	38000	23000	19000	22400	41800	40000	38800	35900	39000	56300
6	41100	40200	35000	23100	20000	24400	39700	39500	37900	35400	39500	47000
7	41100	40000	33000	23100	20000	23000	38400	38600	36400	35400	38000	41300
8	40800	39700	28900	22900	20000	22600	37900	39000	36400	36200	37500	39300
9	39700	40000	26000	21700	20000	23000	36800	38000	36400	37000	40000	37500
10	39300	40600	25200	21500	20000	23000	36800	38200	36100	37200	50000	37500
11	38200	40000	24600	22000	21000	24400	36600	37700	36600	37500	47000	36400
12	37200	41600	24800	21900	22000	25000	36600	37900	37200	36400	39000	36400
13	37900	41600	24200	21900	23000	27000	37700	38200	38000	37900	37000	36600
14	39300	40600	25200	21000	24000	28200	37900	37900	37900	36400	36400	37700
15	39500	39500	25400	21100	24000	29400	38400	37700	37800	37000	36100	37900
16	39700	40600	25800	21000	25000	27400	37500	37700	36300	37500	40000	37200
17	40000	40000	26000	21000	26000	27600	39000	37500	37500	36200	45600	37700
18	40400	39700	25800	20000	28000	28200	40400	37900	38800	38000	43000	38400
19	40400	39300	25600	19000	28000	28900	39500	38000	40000	37500	40400	38200
20	40400	40200	25600	18000	28000	28000	38300	39700	40200	38600	38400	37000
21	40400	40800	25600	18000	28000	31400	40200	40400	38200	38600	40000	37200
22	39500	40800	24600	20600	28000	37000	40800	43300	37700	43600	41800	36600
23	39700	40200	24000	21200	27900	39000	43300	48000	38200	41300	41100	39000
24	40000	40000	25800	20000	27800	37700	42000	50300	42000	38800	39000	38400
25	40400	39000	26000	20000	27800	38400	40800	45600	43800	43800	37700	38400
26	40400	40000	24800	19000	27600	40200	40600	41100	38000	40400	37000	36200
27	39700	40200	25200	17000	26200	38400	39700	40600	36400	38400	36800	37700
28	40200	39500	24800	16000	25000	39000	39500	47600	36600	37900	36800	37200
29	40000	38400	24400	15000	---	40000	38400	51000	36800	38200	37200	37000
30	39500	37500	24600	14000	---	40200	37900	47000	37500	36600	36400	37200
31	39300	---	23400	13000	---	39700	---	41300	---	37000	51200	---
TOTAL	1240500	1202800	865900	630900	650800	930100	1175600	1266500	1154100	1172200	1251800	1228100
MEAN	40020	40090	27930	20350	23240	30000	39190	40850	38470	37810	40380	40940
MAX	41600	41600	40000	23600	28000	40200	43300	51000	43800	43600	51200	58600
MIN	37200	37500	23400	13000	14000	22400	36600	37500	36100	35400	36100	36400
AC-FT	2461000	2386000	1718000	1251000	1291000	1845000	2332000	2512000	2289000	2325000	2483000	2436000

CAL YR 1976 TOTAL 14281700 MEAN 39020 MAX 61600 MIN 14300 AC-FT 28330000
WTR YR 1977 TOTAL 12769300 MEAN 34980 MAX 58600 MIN 13000 AC-FT 25330000

06815000 LITTLE NEMAHA RIVER AT AUBURN, NE

LOCATION.--Lat 40°23'33", long 95°48'46", in NE1/4NW1/4 sec.23, T.5 N., R.14 E., Nemaha County, Hydrologic Unit 10240008, on left bank at downstream side of bridge on U.S. Highway 136, 1 mi (2 km) downstream from Longs Creek and Willow Creek and 1 mi (2 km) east of Auburn.

DRAINAGE AREA.--793 mi² (2,054 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1949 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 889.87 ft (271.232 m) above mean sea level. See WSP 2119 for history of changes prior to July 26, 1967.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--28 years, 267 ft³/s (7.561 m³/s), 193,400 acre-ft/yr (0.238 km³/yr); median of yearly mean discharges, 190 ft³/s (5.381 m³/s), 138,000 acre-ft/yr (0.170 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 164,000 ft³/s (4,640 m³/s) May 9, 1950, gage height, 27.65 ft (8.428 m), from floodmark, from rating curve extended above 49,000 ft³/s (1,390 m³/s) on basis of computations of peak flow through bridge and culvert openings and over highway and railway embankments at gage heights 24.96 ft (7.608 m) and 27.65 ft (8.428 m); minimum daily, 4.2 ft³/s (0.12 m³/s) Aug. 7, 1956.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 ft³/s (142 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 16	1300	6370	180	14.32	4.365
Aug. 31	1900	5480	155	13.50	4.115
Sept. 2	1200	9860	279	16.91	5.154
Sept. 4	0030	*32000	906	22.58	6.882
Sept. 12	1300	14100	399	19.03	5.800

Minimum daily discharge, 0.87 ft³/s (0.025 m³/s) July 6-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	43	47	35	42	53	63	40	51	1.2	15	1670
2	33	42	42	40	46	58	63	37	40	1.0	11	4310
3	33	41	45	39	50	71	58	42	32	1.1	9.2	6200
4	41	42	44	40	46	69	87	49	30	1.0	12	17000
5	39	41	44	38	43	59	93	43	24	1.1	12	2440
6	33	43	35	35	40	56	81	36	21	.87	21	723
7	30	42	33	40	37	56	66	35	19	.87	28	426
8	30	41	32	35	40	57	56	36	18	.87	32	273
9	30	43	54	25	54	58	52	37	15	1.0	76	305
10	30	43	45	26	90	61	54	33	13	1.1	212	224
11	31	43	40	30	86	79	51	33	12	30	135	166
12	30	39	46	29	82	90	49	31	12	32	210	7820
13	29	37	42	45	80	79	50	29	14	53	97	1240
14	30	40	40	40	82	70	49	28	14	26	199	606
15	29	45	45	33	70	60	45	28	13	9.7	671	293
16	27	52	48	25	70	55	44	27	9.7	16	4190	197
17	28	55	53	27	74	56	40	29	8.8	8.5	908	293
18	31	56	60	30	70	50	43	26	5.1	4.6	297	550
19	34	53	48	36	82	51	45	32	4.2	3.5	167	200
20	38	51	40	40	80	59	40	30	3.1	3.0	109	138
21	37	47	35	37	86	62	53	30	7.0	3.4	88	122
22	36	45	42	40	90	61	54	40	16	8.3	79	143
23	37	53	40	44	96	56	54	46	22	4.2	69	138
24	37	49	45	42	94	52	46	30	18	4.0	66	438
25	40	52	44	40	83	51	41	30	10	28	58	292
26	40	51	43	43	74	53	40	27	4.4	15	58	158
27	38	47	44	45	62	51	39	41	4.3	10	94	122
28	37	37	43	35	56	66	38	492	3.4	9.3	850	104
29	38	41	39	30	---	88	30	205	3.3	117	282	92
30	40	45	34	40	---	91	38	116	1.0	86	131	88
31	42	---	30	35	---	72	---	72	---	27	3560	---
TOTAL	1062	1357	1330	1125	1919	1956	1583	1916	445.5	501.01	12589.2	46387
MEAN	34.3	45.2	42.9	36.3	68.5	63.1	52.8	61.8	14.9	16.2	406	1546
MAX	42	55	60	45	96	90	93	492	51	117	4190	17000
MIN	27	37	30	25	37	50	30	27	1.0	.87	9.2	88
AC-FT	2110	2690	2640	2230	3810	3880	3140	3800	884	994	24970	92010

CAL YR 1976 TOTAL 46670.00 MEAN 128 MAX 7230 MIN 17 AC-FT 92570
WTR YR 1977 TOTAL 72140.51 MEAN 198 MAX 17000 MIN .87 AC-FT 143100

06811500 LITTLE NEMAHA RIVER AT AUBURN, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)
NOV										
02...	1030	41	634	8.7	10.0	5	10.5	8.0	440	212
16...	1220	51	658	8.3	3.5	20	9.9	2.2	4600	700
DEC										
07...	1320	32	736	8.0	.0	9	13.1	3.6	17330	786
JAN										
18...	1300	31	783	7.5	.0	5	9.0	1.8	28000	2800
FEB										
08...	1130	40	709	7.3	.5	5	8.9	2.8	--	--
MAR										
01...	1130	52	598	7.5	1.0	25	12.2	2.6	1030	400
APR										
11...	1530	54	564	7.8	21.0	20	11.7	5.6	3470	333
MAY										
03...	1400	43	600	8.2	23.0	25	7.2	3.6	24300	10600
JUN										
15...	1310	13	680	8.4	30.0	20	9.2	8.0	3900	700
JUL										
06...	1130	1.2	850	8.1	29.0	15	13.4	15	7100	--
AUG										
15...	1120	1030	190	6.7	18.0	1400	--	6.2	73000	--
SEP										
30...	1220	88	613	7.9	18.5	45	6.6	1.0	4300	--

DATE	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)
NOV										
02...	--	28	406	.55	.05	.40	.45	.89	.25	--
16...	--	21	401	.55	.00	.72	.72	.72	.21	--
DEC										
07...	--	28	--	.63	.25	.46	.71	1.8	.34	.30
JAN										
18...	--	28	478	.65	.47	.19	.66	2.6	.40	--
FEB										
08...	--	26	443	.60	.30	.21	.51	2.4	.30	--
MAR										
01...	--	17	--	.48	.10	.52	.62	1.6	.29	.21
APR										
11...	--	36	378	.51	.07	.66	.73	.84	.38	--
MAY										
03...	--	22	385	.52	.03	1.4	1.4	2.3	.84	--
JUN										
15...	--	27	--	.57	.23	.70	.93	1.6	.60	.60
JUL										
06...	440	68	506	.69	1.2	1.8	3.0	3.5	2.0	--
AUG										
15...	8227000	6.0	--	.14	.51	5.8	6.3	7.5	1.1	.15
SEP										
30...	3200	16	375	.51	.29	.60	.89	2.3	.45	--

06811500 LITTLE NEMAHA RIVER AT AUBURN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)
DEC										
07...	1320	8	300	0	85	22	48	1.2	4.4	371
MAR										
01...	1130	12	240	5	69	16	34	1.0	3.7	284
JUN										
15...	1310	12	270	12	78	19	47	1.2	5.3	310
AUG										
15...	1120	340	66	6	20	3.8	8.8	.5	6.7	73

DATE	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED FLUORIDE (F) (MG/L) (00950)	DISSOLVED SILICA (SIO2) (MG/L) (00955)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DISSOLVED ARSENIC (AS) (UG/L) (01000)	DISSOLVED BORON (B) (UG/L) (01020)	DISSOLVED CADMIUM (CD) (UG/L) (01025)	DISSOLVED CHROMIUM (CR) (UG/L) (01030)
DEC										
07...	0	304	73	.3	18	462	--	90	--	--
MAR										
01...	0	233	55	.2	16	351	3	50	2	0
JUN										
15...	4	260	69	.4	19	422	--	100	--	--
AUG										
15...	0	60	15	.3	8.6	105	2	50	1	0

DATE	DISSOLVED COPPER (CU) (UG/L) (01040)	DISSOLVED IRON (FE) (UG/L) (01046)	DISSOLVED LEAD (PB) (UG/L) (01049)	DISSOLVED MANGANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUSPENDED MERCURY (HG) (UG/L) (71895)	DISSOLVED MERCURY (HG) (UG/L) (71890)	DISSOLVED SELENIUM (SE) (UG/L) (01145)	DISSOLVED SILVER (AG) (UG/L) (01075)	DISSOLVED ZINC (ZN) (UG/L) (01090)
DEC										
07...	--	30	--	290	--	--	--	--	--	--
MAR										
01...	6	50	2	160	.2	.2	.0	2	0	10
JUN										
15...	--	100	--	140	--	--	--	--	--	--
AUG										
15...	4	80	2	0	.2	.2	.0	1	0	2

06813500 MISSOURI RIVER AT RULO, NE

LOCATION.--Lat 40°03'14", long 95°25'12", in NW1/4NW1/4 sec.17, T.1 N., R.18 E., Richardson County, Hydrologic Unit 10240005, on downstream end of middle pier of bridge on U.S. Highway 159 at Rulo, 3.2 mi (5.1 km) upstream from Nemaha River and at mi 498.0 (801.3 km).

DRAINAGE AREA (REVISED).--414,900 mi² (1,075,000 km²), approximately. The 3,959 mi² (10,254 km²) in Great Divide basin are not included.

PERIOD OF RECORD.--October 1949 to current year in reports of Geological Survey. Gage-height record collected at site 80 ft upstream January 1886 to December 1899 published in reports of Missouri River Commission; September 1929 to September 1950 in files of Kansas City Office of Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is 837.23 ft (255.188 m) above mean sea level. Prior to Sept. 13, 1950, nonrecording gage at site 80 ft (24 m) upstream at same datum.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by upstream main-stem reservoirs. Several observations of water temperatures were made during the year. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--28 years, 39,020 ft³/s (1,105 m³/s), 28,270,000 acre-ft/yr (34.9 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 358,000 ft³/s (10,100 m³/s) Apr. 22, 1952, gage height, 25.60 ft (7.803 m); minimum daily, 4,420 ft³/s (125 m³/s) Jan. 13, 1957; minimum gage height, 0.65 ft (0.198 m) Jan. 7, 1971, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1881 reached a stage of 22.9 ft (6.98 m), from floodmark, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 83,100 ft³/s (2,350 m³/s) Sept. 5, gage height, 16.87 ft (5.142 m); maximum gage height, 17.25 ft (5.258 m) Jan. 28, backwater from ice; minimum daily discharge, 14,000 ft³/s (396 m³/s) Feb. 1; minimum gage height, 5.36 ft (1.634 m) Jan. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42000	40200	37000	24000	14000	26100	40700	38500	42300	37400	37200	69700
2	41700	40400	36600	24000	15000	25900	38900	38300	41800	36600	37400	57700
3	41600	40600	38400	23800	16000	25800	41400	39000	43000	36000	37800	69700
4	42600	40800	40200	23600	18000	25400	43100	38900	40100	35800	38200	76500
5	42700	41500	39700	23000	19000	24600	42800	40200	39100	35900	38100	77700
6	42200	41200	36100	24000	19500	24300	41500	41200	38400	35400	40300	62500
7	41600	40700	33500	24000	20000	24800	39100	40500	37000	35200	39500	49300
8	41000	39600	30000	23500	20000	23300	38800	39500	36300	35300	38200	43200
9	39700	40000	26900	23000	21000	24000	38400	43400	36000	36400	42800	41000
10	39400	40500	26300	22500	21000	24300	37800	39300	36300	36600	57000	39200
11	38800	40500	26200	22500	21000	25400	38400	39700	36200	37500	49500	38300
12	37800	41200	25300	22000	22000	27700	38000	38300	36600	36600	43900	47900
13	37700	42000	25100	22000	23000	28000	38300	38200	38400	37300	38300	61900
14	39100	41700	25400	22000	24000	29100	39200	37900	38200	37100	38200	46400
15	40500	39500	26000	22000	26000	31100	40400	38000	38000	36300	38900	41500
16	40400	39400	25900	22000	27000	29900	40200	37700	37600	37700	47600	40700
17	40400	40200	26300	22500	27900	29000	39100	37900	36800	37600	49300	39200
18	41100	40100	26400	21000	27800	29300	42400	37400	38000	39300	44400	41200
19	41100	40300	26000	20000	27500	29700	41100	39500	39000	38100	41000	40200
20	41200	40600	25800	19000	27000	29000	40500	43700	40500	36400	38300	39200
21	41700	41400	25900	18500	28000	30100	41200	40800	38800	35900	38400	38800
22	41200	41700	25300	20500	29000	35000	41000	41800	37400	41000	40700	38100
23	41000	40700	24400	21000	27300	40500	41500	45200	36800	43800	41900	38200
24	40700	40600	25000	20000	29100	39600	44000	49500	37600	38200	39500	46200
25	41200	39700	26600	20000	29300	38600	41000	46300	44700	41400	38600	42800
26	41400	40100	25800	19500	29300	41300	40300	42100	41400	41400	38300	40600
27	40900	40600	26100	18500	28300	41900	40000	40600	36200	39400	38400	39700
28	40800	40500	26100	17500	27000	40800	40000	46500	36900	37700	49500	38900
29	41200	39200	25600	16500	---	43100	39400	56600	37500	41000	47300	38400
30	40500	37900	24800	15500	---	42800	39100	56200	37500	37600	41500	38100
31	40000	---	24800	15000	---	43100	---	46100	---	36900	48600	---
TOTAL	1263200	1213400	883500	652900	664000	973500	1207600	1298800	1153900	1168800	1298600	1422800
MEAN	40750	40450	28500	21060	23710	31400	40250	41900	38460	37700	41890	47430
MAX	42700	42000	40200	24000	29300	43100	44000	56600	44700	43800	57000	77700
MIN	37700	37900	24400	15000	14000	23300	37800	37400	36000	35200	37200	38100
AC-FT	2506000	2407000	1752000	1295000	1317000	1931000	2395000	2576000	2289000	2318000	2576000	2822000

CAL YR 1976 TOTAL 14736700 MEAN 40260 MAX 69100 MIN 15000 AC-FT 29230000
WTR YR 1977 TOTAL 13201000 MEAN 36170 MAX 77700 MIN 14000 AC-FT 26180000

06814000 TURKEY CREEK NEAR SENECA, KS

LOCATION.--Lat 39°56'52", long 96°06'30", in SW1/4NW1/4SW1/4 sec.20, T.1 S., R.12 E., Nemaha County, Hydrologic Unit 10240007, at downstream side of highway bridge, 2.0 mi (3.2 km) downstream from Clear Creek, 5.0 mi (8.0 km) upstream from Big Nemaha River, and 8.0 mi (12.9 km) northwest of Seneca.

DRAINAGE AREA.--276 mi² (715 km²).

PERIOD OF RECORD.--October 1948 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Altitude of gage is 1,160 ft (354 m), from topographic map. Prior to Oct. 19, 1956, water-stage recorder (occasional operation only) and nonrecording gage on former channel 400 ft (120 m) south of present site at present datum. Oct. 19, 1956, to June 15, 1957, nonrecording gage at highway bridge 1.2 mi (1.9 km) upstream at different datum. June 16, 1957, to Mar. 27, 1958, nonrecording gage at present site and datum.

REMARKS.--Records good except those for December through March, which are poor.

AVERAGE DISCHARGE.--29 years, 119 ft³/s (3.370 m³/s), 86,220 acre-ft/yr (0.106 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,400 ft³/s (606 m³/s) Oct. 11, 1973, gage height, 24.77 ft (7.550 m); no flow at times in 1956-57, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,100 ft³/s (87.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Sept. 2	2300	4270	121	19.96	6.084
Sept. 12	1300	*9820	278	22.94	6.992

minimum discharge, no flow July 26-28,30,31, Aug. 1-3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	4.7	4.5	2.8	3.2	6.0	6.8	3.4	9.7	.17	.00	800
2	11	4.4	4.7	3.1	3.7	6.5	8.0	3.7	5.0	.23	.00	1480
3	11	4.3	5.0	3.2	4.0	7.5	8.5	4.1	2.7	.32	.00	3230
4	10	3.3	5.0	3.5	4.5	8.5	12	4.2	1.9	.18	.04	585
5	9.0	2.9	4.5	3.4	4.0	8.0	17	3.8	1.3	.15	.02	625
6	6.2	3.1	4.2	3.3	3.5	7.0	14	3.8	1.1	.13	1.5	197
7	3.8	4.3	4.0	3.1	3.0	8.0	10	4.0	.83	.14	8.1	105
8	2.9	3.7	3.7	3.1	3.5	10	8.4	2.7	.74	.15	1.3	74
9	3.4	4.1	4.3	3.0	4.5	11	8.1	2.9	.53	.70	.66	59
10	2.7	4.8	4.0	2.8	6.0	11	6.4	2.7	.61	1.4	15	53
11	2.5	3.9	3.8	2.7	7.0	11	4.8	2.6	.53	10	104	46
12	2.5	3.2	3.8	3.0	7.5	15	4.8	2.3	.43	12	53	5610
13	2.5	4.0	4.0	3.5	8.0	15	5.2	2.0	.37	1.9	13	2760
14	2.5	3.4	4.5	3.2	7.0	11	5.3	1.8	.53	.59	5.6	274
15	2.5	8.0	4.8	3.0	6.0	8.4	5.7	1.7	.34	.22	274	165
16	2.2	4.8	5.0	2.8	5.6	6.6	5.4	1.5	.31	.12	527	137
17	2.5	5.7	5.5	3.0	5.2	6.0	5.5	1.6	.80	.09	504	114
18	3.0	6.3	5.5	3.5	6.0	5.1	5.3	1.5	.71	.05	65	90
19	3.9	5.9	5.0	4.5	6.5	5.2	5.8	2.4	.40	.06	32	74
20	4.1	5.7	4.5	4.3	7.0	5.3	5.3	3.3	.60	.04	20	65
21	4.3	5.7	4.0	4.3	7.5	5.3	5.4	4.5	.40	.02	90	242
22	4.4	4.3	4.3	4.5	8.0	5.4	5.0	3.8	17	.02	145	98
23	5.9	4.6	4.5	5.0	8.4	5.2	5.0	2.6	5.8	.02	38	62
24	3.6	4.9	4.7	5.0	8.0	4.8	4.0	2.7	2.4	.02	18	118
25	3.7	5.3	4.5	4.5	7.6	5.0	3.8	2.1	19	.02	10	70
26	4.1	5.4	4.7	5.0	7.2	4.7	3.1	2.2	5.5	.00	5.5	48
27	3.2	5.2	5.0	4.5	6.5	4.6	3.1	7.7	1.5	.00	6.8	41
28	3.3	5.0	4.5	4.0	6.0	12	3.0	75	.70	.00	1630	36
29	3.8	4.6	4.0	3.8	---	17	2.9	71	.45	.01	339	36
30	6.0	4.5	3.5	3.6	---	13	2.7	30	.30	.00	82	35
31	4.7	---	3.0	3.0	---	8.6	---	19	---	.00	148	---
TOTAL	148.2	140.0	137.0	112.0	164.9	257.7	190.3	276.6	82.48	28.75	4132.52	17329
MEAN	4.78	4.67	4.42	3.61	5.89	8.31	6.34	8.92	2.75	.93	133	578
MAX	13	8.0	5.5	5.0	8.4	17	17	75	19	12	1630	5610
MIN	2.2	2.9	3.0	2.7	3.0	4.6	2.7	1.5	.30	.00	.00	35
AC-FT	294	278	272	222	327	511	377	549	164	57	8200	34370

CAL YR 1976 TOTAL 27052.30 MEAN 73.9 MAX 2880 MIN 1.6 AC-FT 53660
WTR YR 1977 TOTAL 22999.45 MEAN 63.0 MAX 5610 MIN .00 AC-FT 45620

06814500 NORTH FORK BIG NEMAHA RIVER AT HUMBOLDT, NE

LOCATION.--Lat 40°09'25", long 95°56'40", in NW1/4NE1/4 sec.10, T.2 N., R.13 E., Richardson County, Hydrologic Unit 10240008, on right pile bent of bridge on State Highway 105 at south edge of Humboldt, 800 ft (244 m) downstream from Long Branch Creek.

DRAINAGE AREA.--548 mi² (1,419 km²).

PERIOD OF RECORD.--October 1952 to current year. Prior to October 1965 published as North Fork Nemaha River at Humboldt.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 944.44 ft (287.865 m) above mean sea level. Prior to Apr. 5, 1968, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--25 years, 182 ft³/s (5.154 m³/s), 131,900 acre-ft/yr (0.163 km³/yr); median of yearly mean discharges, 110 ft³/s (3.115 m³/s), 79,700 acre-ft/yr (98.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,000 ft³/s (1,440 m³/s) July 10, 1958, gage height, 31.70 ft (9.662 m); minimum daily, 0.07 ft³/s (0.002 m³/s) July 22,23, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 ft³/s (142 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 16	1530	8630	244	12.15	3.703	Sept. 3	0030	9480	268	12.68	3.865
Aug. 28	0245	6430	182	11.02	3.359	Sept. 12	1000	*11500	326	13.94	4.249

Minimum daily discharge, 0.07 ft³/s (0.002 m³/s) July 22,23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	25	28	20	20	36	36	20	28	.74	1.1	100
2	21	24	26	23	22	41	41	25	21	.66	.70	960
3	21	22	29	25	24	48	38	23	16	.97	.50	2220
4	27	22	28	25	24	42	59	28	13	.80	193	1080
5	31	25	26	21	23	25	57	24	14	.58	18	764
6	23	25	25	25	22	36	43	32	12	.42	60	215
7	23	25	23	26	21	34	37	25	7.0	.25	24	81
8	22	25	23	24	24	32	31	25	4.9	.16	5.2	52
9	21	27	33	15	35	35	29	25	5.4	.14	457	44
10	22	26	32	16	50	35	26	21	5.0	.44	482	48
11	21	28	30	20	56	44	26	18	3.4	3.1	228	35
12	24	28	32	19	66	59	24	19	3.1	21	176	6450
13	20	29	31	22	62	42	27	19	2.3	48	92	1430
14	20	38	32	20	58	38	28	18	1.7	7.7	736	377
15	19	41	32	20	56	35	25	17	1.4	1.9	2400	145
16	18	36	33	16	66	31	20	17	1.3	1.3	4740	92
17	19	32	37	18	92	31	27	19	1.5	.90	932	69
18	20	31	38	19	80	31	30	19	1.3	.68	236	52
19	23	30	35	21	78	34	31	23	.98	.48	91	48
20	25	30	30	19	76	39	30	37	.91	.27	57	42
21	25	29	24	18	90	36	31	32	1.5	.16	190	53
22	24	30	27	21	82	32	31	71	5.4	.07	235	45
23	24	31	26	23	79	31	28	139	6.1	.07	78	41
24	24	31	28	22	61	30	28	65	2.7	.35	59	128
25	25	31	28	21	48	28	24	36	2.7	1.5	49	61
26	25	31	29	21	45	32	22	26	1.8	1.2	51	51
27	25	30	30	23	39	48	22	57	1.3	.98	129	41
28	24	20	27	18	38	59	24	219	1.0	1.9	2360	39
29	24	22	22	19	---	61	24	208	.92	9.3	297	38
30	26	25	20	20	---	44	19	74	.98	3.8	70	39
31	28	---	18	18	---	42	---	41	---	2.2	44	---
TOTAL	716	849	882	638	1437	1191	918	1422	168.59	112.02	14491.50	14840
MEAN	23.1	28.3	28.5	20.6	51.3	38.4	30.6	45.9	5.62	3.61	467	495
MAX	31	41	38	26	92	61	59	219	28	48	4740	6450
MIN	18	20	18	15	20	25	19	17	.91	.07	.50	35
AC-FT	1420	1680	1750	1270	2850	2360	1820	2820	334	222	28740	29440

CAL YR 1976 TOTAL 38039.00 MEAN 104 MAX 5650 MIN 6.5 AC-FT 75450
WTR YR 1977 TOTAL 37665.11 MEAN 103 MAX 6450 MIN .07 AC-FT 74710

06815000 BIG NEMAHA RIVER AT FALLS CITY, NE

LOCATION.--Lat 40°02'00", long 95°35'30", on line between secs.22 and 23, T.1 N., R.16 E., Richardson County, Hydrologic Unit 10240008, near right bank on downstream side of pier of bridge on U.S. Highway 73, 1 mi (2 km) south of Falls City and 13 mi (21 km) upstream from mouth.

DRAINAGE AREA.--1,340 mi^2 (3,471 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1944 to current year. Prior to October 1965, published as Nemaha River at Falls City.

REVISED RECORDS.--WSP 1086: Drainage area.

GAGE.--Water-stage recorder for stages above 6.1 ft (1.86 m); nonrecording gage read twice daily. Datum of gage is 861.24 ft (262.506 m) above mean sea level (levels by Corps of Engineers). Prior to Oct. 16, 1952, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--33 years, 567 ft^3/s (16.06 m^3/s), 410,800 acre-ft/yr (0.507 km^3/yr); median of yearly mean discharges, 400 ft^3/s (11.33 m^3/s), 290,000 acre-ft/yr (0.358 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,600 ft^3/s (2,030 m^3/s) Oct. 11, 1973, gage height, 31.40 ft (9.571 m); minimum daily discharge, 3.0 ft^3/s (0.085 m^3/s) July 9, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 15,000 ft^3/s (425 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Sept. 3	0530	19900	564	19.20	5.852
Sept. 13	0600	*37800	1070	26.25	8.001

Minimum daily discharge, 3.0 ft^3/s (0.085 m^3/s) July 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	61	40	25	50	83	86	42	298	6.9	6.3	4120
2	40	61	45	26	52	83	86	42	160	6.7	4.7	5080
3	37	56	40	29	54	100	92	48	85	6.3	3.7	13900
4	45	53	43	30	60	97	101	48	82	4.1	160	5830
5	49	56	43	28	56	89	111	47	103	4.7	174	3550
6	43	58	38	26	50	95	111	42	74	3.7	201	1290
7	44	53	36	26	47	85	101	45	49	4.2	108	559
8	42	55	39	26	50	79	81	76	38	3.3	92	354
9	42	58	42	26	56	79	74	64	28	3.0	161	277
10	40	58	40	25	64	78	61	52	28	4.9	573	226
11	40	56	38	27	80	126	59	44	26	71	502	210
12	40	56	40	29	88	118	56	42	24	79	491	11100
13	38	50	39	30	90	113	57	36	25	71	296	33300
14	39	52	44	32	84	101	56	36	20	55	139	7110
15	37	56	42	32	90	86	53	32	19	21	2070	1640
16	36	61	44	25	98	75	53	31	17	11	3680	1080
17	38	62	45	27	94	70	48	32	13	4.7	3080	872
18	38	63	50	29	90	67	56	38	20	6.1	895	709
19	42	63	49	32	100	63	56	934	13	5.3	337	584
20	43	63	45	35	110	66	61	2590	13	4.7	199	523
21	46	63	35	33	120	71	68	854	13	8.6	150	495
22	46	53	40	37	126	66	66	375	21	12	337	680
23	50	63	39	42	144	61	63	312	86	6.7	309	530
24	51	64	42	39	152	58	55	217	53	6.9	152	523
25	52	63	42	38	135	58	46	130	67	97	100	488
26	56	62	44	41	118	62	48	97	40	11	78	422
27	55	44	45	40	100	83	50	100	34	4.7	61	340
28	56	30	30	42	91	89	50	337	18	4.7	4970	309
29	57	32	26	45	---	101	44	780	12	85	2900	283
30	58	35	25	50	---	91	45	2820	11	20	649	277
31	58	---	23	47	---	91	---	519	---	9.2	352	---
TOTAL	1397	1660	1233	1019	2449	2584	1994	10862	1490	642.4	23230.7	96661
MEAN	45.1	55.3	39.8	32.9	87.5	83.4	66.5	350	49.7	20.7	749	3222
MAX	58	64	50	50	152	126	111	2820	298	97	4970	33300
MIN	36	30	23	25	47	58	44	31	11	3.0	3.7	210
AC-FT	2770	3290	2450	2020	4860	5130	3960	21540	2960	1270	46080	191700

CAL YR 1976 TOTAL 110297.0 MEAN 301 MAX 7340 MIN 23 AC-FT 218800
WTR YR 1977 TOTAL 145222.1 MEAN 398 MAX 33300 MIN 3.0 AC-FT 288000

06815000 BIG NEMAHA RIVER AT FALLS CITY, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)
NOV										
02...	1430	60	740	8.6	12.5	18	11.7	7.6	1100	252
16...	1630	70	790	8.5	4.5	10	13.2	20	1330	880
DEC										
07...	1530	36	856	8.5	.0	6	15.4	3.6	8333	740
JAN										
18...	1545	29	1020	7.7	.0	5	10.8	2.2	7670	840
FEB										
08...	1630	51	789	8.2	.5	10	11.3	3.0	--	--
MAR										
01...	1530	88	632	7.0	1.5	10	10.4	--	238	71
APR										
11...	1640	57	688	8.2	20.0	15	13.0	11	1340	60
MAY										
03...	1900	47	665	8.3	25.0	25	8.8	2.6	1730	680
20...	1345	2010	385	7.5	18.0	1900	4.5	8.2	276000	500000
JUN										
15...	1720	17	719	8.6	33.0	35	13.6	10	1800	600
JUL										
06...	1600	3.9	662	8.4	36.0	25	8.4	11	8100	--
AUG										
15...	1420	3080	260	7.7	22.0	1500	--	7.6	52000	--
SEP										
30...	0930	214	658	7.8	19.0	35	7.2	1.3	7300	--

DATE	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)
NOV										
02...	--	35	462	.63	.14	.68	.82	1.0	.19	--
16...	--	34	506	.69	.00	.50	.50	.52	.20	--
DEC										
07...	--	41	--	.77	.11	.07	.18	1.1	.20	.16
JAN										
18...	--	38	638	.87	.37	.09	.46	2.4	.34	--
FEB										
08...	--	37	590	.80	.46	.33	.79	2.7	.34	--
MAR										
01...	--	23	--	.51	.17	.48	.65	1.3	.23	.19
APR										
11...	--	30	418	.57	.16	.83	.99	1.2	.27	--
MAY										
03...	--	30	439	.60	.12	1.1	1.2	1.6	.32	--
20...	--	16	--	.29	.68	13	14	15	1.1	.13
JUN										
15...	--	37	--	.58	.12	1.6	1.7	1.7	.39	.23
JUL										
06...	700	57	408	.55	.03	1.2	1.2	1.2	.35	--
AUG										
15...	8183000	6.2	--	.19	.59	5.6	6.2	7.3	1.5	.15
SEP										
30...	2600	21	418	.57	.08	1.3	1.4	3.6	.34	--

06815000 BIG NEMAHA RIVER AT FALLS CITY, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)
DEC										
07...	1530	6	390	80	110	28	48	1.1	4.5	378
MAR										
01...	1530	9	270	48	76	19	31	.8	3.5	271
MAY										
20...	1345	100	140	25	40	9.7	19	.7	6.5	140
JUN										
15...	1720	25	290	78	82	21	43	1.1	6.4	260
AUG										
15...	1420	120	98	8	30	5.6	9.5	.4	5.8	110

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)
DEC										
07...	0	310	140	.3	9.8	568	--	120	--	--
MAR										
01...	0	222	82	.2	7.3	376	2	60	2	0
MAY										
20...	0	110	47	.4	7.4	215	--	80	--	--
JUN										
15...	0	210	100	.5	11	429	--	110	--	--
AUG										
15...	0	90	21	.4	9.5	142	2	52	1	0

DATE	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUS-PENDED MERCURY (HG) (UG/L) (71895)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)
DEC										
07...	--	50	--	180	--	--	--	--	--	--
MAR										
01...	5	60	6	100	.2	.2	.0	2	0	10
MAY										
20...	--	200	--	80	--	--	--	--	--	--
JUN										
15...	--	50	--	60	--	--	--	--	--	--
AUG										
15...	3	60	3	4	.2	.2	.0	2	0	2

06821500 ARIKAREE RIVER AT HAIGLER, NE

LOCATION.--Lat 40°01'45", long 101°58'10", in NE1/4NE1/4 sec.29, T.1 N., R.41 W., Dundy County, Hydrologic Unit 10250001, on left bank 57 ft (17 m) downstream from bridge on U.S. Highway 34, 1.3 mi (2.1 km) upstream from Burlington Northern Inc. bridge, 1.8 mi (2.9 km) upstream from confluence with North Fork Republican River, 2 mi (3 km) northwest of Haigler, and 3.2 mi (5.1 km) downstream from Kansas-Nebraska State line.

DRAINAGE AREA.--1,640 mi² (4,250 km²), approximately, of which about 980 mi² (2,540 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1931 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1919: 1951, 1954, 1956, 1960. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,250.98 ft (990.899 m) above mean sea level. See WSP 1919 for history of changes prior to Sept. 29, 1964.

REMARKS.--Records fair. Natural flow affected by ground-water withdrawals and diversions for irrigation of about 1,500 acres (6.07 km²) in Colorado and by return flow from Pioneer Canal.

AVERAGE DISCHARGE.--46 years, 24.3 ft³/s (0.688 m³/s), 17,610 acre-ft/yr (21.7 hm³/yr); median of yearly mean discharges, 21 ft³/s (0.595 m³/s), 15,200 acre-ft/yr (18.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,000 ft³/s (1,420 m³/s) May 31, 1935, gage height, 11.2 ft (3.41 m), site and datum then in use, from floodmarks, from rating curve extended above 3,800 ft³/s (108 m³/s) on basis of slope-area measurement of peak flow; no flow for some periods in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,790 ft³/s (79.0 m³/s) Apr. 20, gage height, 9.49 ft (2.893 m), no other peak above base of 800 ft³/s (22.7 m³/s); minimum daily, 0.06 ft³/s (0.002 m³/s) July 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	18	1.4	.35	.96	.86	23	28	18	3.9	.20	9.6
2	4.8	16	1.6	.35	.96	.79	28	132	14	2.4	.39	6.0
3	3.5	13	1.4	.52	1.1	.54	32	101	18	2.8	.36	6.9
4	3.1	10	1.2	.61	1.1	.83	37	118	6.2	1.3	.16	6.8
5	3.5	12	1.2	.64	.94	.96	35	86	4.5	.68	.25	4.1
6	3.7	13	.96	.50	1.1	.90	26	60	8.5	.64	.48	2.9
7	2.9	12	1.2	.64	.97	1.0	20	45	7.8	.63	.61	.88
8	2.9	13	1.3	.77	1.2	2.3	18	43	6.2	1.1	1.3	.80
9	2.6	5.7	1.4	.85	1.2	.98	19	36	1.2	.49	1.1	2.4
10	1.8	1.5	1.2	1.0	1.2	.78	18	25	.85	1.5	.57	.85
11	2.8	1.1	1.2	.96	1.3	.70	14	30	.63	.49	.31	1.1
12	3.1	.81	1.2	.57	1.4	.60	13	27	1.3	.27	3.3	1.3
13	3.5	.62	1.2	.48	1.4	.60	15	28	1.9	.17	2.8	1.0
14	1.2	.90	1.3	.41	1.6	.65	18	27	2.1	.16	3.1	.80
15	2.9	.88	1.2	.37	1.3	.70	53	27	1.3	.15	1.4	.14
16	3.2	.77	1.2	.35	1.2	.78	53	19	1.2	.13	1.5	3.2
17	9.0	.96	1.2	.35	.96	.84	37	8.8	2.7	.11	1.4	13
18	13	.91	1.2	.44	1.0	1.0	27	4.7	4.5	.09	.82	7.0
19	9.9	.83	1.0	.47	.96	.94	162	4.5	4.7	.06	.16	3.4
20	3.2	.84	.74	.43	.96	10	818	5.6	4.4	.07	.10	1.3
21	1.4	.86	.65	.43	.85	25	103	58	10	.11	.48	.24
22	7.2	.89	.76	.43	.96	45	64	50	22	.11	1.2	.86
23	7.9	.97	.60	.56	.96	44	48	29	1.1	.11	.56	1.1
24	6.5	1.1	.69	.56	.91	50	40	18	1.2	.11	.24	4.3
25	9.9	1.0	.63	.63	.91	54	37	31	12	.11	1.9	4.0
26	13	.67	.76	.64	.82	49	33	39	15	.11	2.5	3.8
27	14	.34	.81	.69	.96	43	30	28	17	.15	1.4	5.4
28	13	.67	.59	.74	.85	43	25	29	12	.15	2.0	4.2
29	12	1.1	.49	1.2	---	34	25	34	11	.15	4.0	5.2
30	13	1.3	.39	1.2	---	22	26	33	5.7	.15	6.0	11
31	16	---	.35	1.2	---	20	---	13	---	.18	8.2	---
TOTAL	204.2	131.72	31.02	19.34	30.03	455.75	1899	1221.6	216.98	18.60	48.35	113.95
MEAN	6.59	4.39	1.00	.62	1.07	14.7	63.3	39.4	7.23	.60	1.56	3.80
MAX	16	18	1.6	1.2	1.6	54	818	132	22	3.9	8.2	13
MIN	1.2	.34	.35	.35	.82	.54	13	4.5	.63	.06	.10	.14
AC-FT	405	261	62	38	60	904	3770	2420	430	37	96	226

CAL YR 1976 TOTAL 2206.39 MEAN 6.03 MAX 35 MIN .00 AC-FT 4380
WTR YR 1977 TOTAL 4390.62 MEAN 12.0 MAX 818 MIN .06 AC-FT 8710

06823000 NORTH FORK REPUBLICAN RIVER AT COLORADO-NEBRASKA STATE LINE

LOCATION.--Lat 40°04'10", long 102°03'05", in sec.10, T.1 N., R.42 W., Dundy County, Ne., Hydrologic Unit 10250002, on right bank 100 ft (30 m) east of Colorado-Nebraska State line and 9.5 mi (15.3 km) upstream from confluence with Arikaree River.

DRAINAGE AREA.--1,360 mi² (3,520 km²), approximately, of which about 100 mi² (260 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1930 to current year. Prior to October 1932, published as North Fork of Arikaree River at Colorado-Nebraska State line. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1240: 1947(M). WSP 1390: 1934. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Steel piling control since January 1965. Datum of gage is 3,336.09 ft (1,016.840 m) above mean sea level. Prior to Oct. 17, 1934, nonrecording gage at present site and datum.

REMARKS.--Records good. Natural flow affected by diversion in Pioneer Canal for irrigation of about 2,700 acres (10.9 km²) in Colorado and Nebraska.

AVERAGE DISCHARGE.--47 years, 48.3 ft³/s (1.368 m³/s), 34,990 acre-ft/yr (43.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,110 ft³/s (59.8 m³/s) Apr. 28, 1947, gage height, 5.92 ft (1.804 m), from rating curve extended above 800 ft³/s (22.7 m³/s) on basis of slope-area measurement of peak flow; no flow Aug. 25, 26, 1932.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 130 ft³/s (3.68 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 15	1730			a*5.62	1.713	Apr. 20	0600	*298	8.4	2.73	0.832
Mar. 19	unknown	b150	4.2	unknown		June 22	1000	232	6.6	2.43	0.741

a backwater from ice
b about, backwater from ice

Minimum daily discharge, 5.6 ft³/s (0.16 m³/s) June 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	23	58	54	65	57	64	56	30	11	11	13
2	25	29	66	54	64	55	66	69	19	7.9	10	13
3	23	28	64	56	65	52	70	75	12	7.8	9.6	13
4	20	26	62	59	65	58	77	67	10	7.4	9.3	13
5	18	27	61	50	64	65	84	22	8.6	7.1	11	13
6	18	26	59	50	65	65	76	34	12	7.7	10	13
7	19	26	57	56	65	68	67	37	9.7	6.6	8.0	13
8	18	35	59	54	65	69	64	38	8.7	6.0	7.4	11
9	15	54	59	50	65	68	62	38	10	6.3	9.4	10
10	8.7	55	58	50	65	66	59	30	12	6.0	10	9.3
11	9.8	55	57	52	60	60	57	18	11	5.7	9.8	7.6
12	11	57	59	52	57	45	61	18	13	9.4	6.6	10
13	9.0	61	59	60	63	30	57	18	10	7.2	5.7	11
14	9.1	61	59	65	65	30	63	18	10	7.1	7.8	11
15	8.2	61	59	60	63	50	88	18	9.3	8.1	5.9	11
16	8.7	61	58	54	60	65	91	16	8.4	8.3	6.7	9.3
17	9.0	59	59	54	62	70	76	15	6.0	6.7	6.3	10
18	12	60	60	54	64	75	69	11	5.6	8.1	5.9	11
19	20	60	59	56	61	110	79	11	45	6.5	7.7	9.8
20	18	59	53	58	64	121	214	9.7	44	7.2	7.6	12
21	16	54	54	66	64	84	127	19	27	8.5	8.2	11
22	9.4	55	56	68	59	76	86	26	135	8.9	7.6	8.3
23	8.4	58	57	67	56	82	74	20	69	7.5	10	8.2
24	8.6	58	57	66	56	85	69	20	42	7.1	12	8.8
25	8.8	59	57	65	59	82	66	22	34	14	12	9.1
26	11	61	58	65	61	80	64	27	24	13	9.4	11
27	22	50	60	65	61	77	64	26	22	10	7.8	13
28	30	48	59	65	61	78	59	26	19	9.7	8.9	11
29	29	50	59	65	---	72	57	26	15	8.8	9.5	10
30	20	54	60	64	---	68	57	41	12	8.8	15	13
31	17	---	52	65	---	65	---	35	---	10	14	---
TOTAL	484.7	1470	1814	1819	1744	2128	2267	906.7	693.3	254.4	280.1	327.4
MEAN	15.6	49.0	58.5	58.7	62.3	68.6	75.6	29.2	23.1	8.21	9.04	10.9
MAX	30	61	66	68	65	121	214	75	135	14	15	13
MIN	8.2	23	52	50	56	30	57	9.7	5.6	5.7	5.7	7.6
AC-FT	961	2920	3600	3610	3460	4220	4500	1800	1380	505	556	649

CAL YR 1976 TOTAL 12514.5 MEAN 34.2 MAX 71 MIN 5.4 AC-FT 24820
WTR YR 1977 TOTAL 14188.6 MEAN 38.9 MAX 214 MIN 5.6 AC-FT 28140

06823500 BUFFALO CREEK NEAR HAIGLER, NE

LOCATION.--Lat 40°02'45", long 101°32'15", in NW1/4NW1/4 sec.20, T.1 S., R.40 W., Dundy County, Hydrologic Unit 10250002, on right bank 90 ft (27 m) downstream from county highway bridge, 0.8 mi (1.3 km) upstream from mouth, and 4 mi (6 km) northeast of Haigler.

DRAINAGE AREA.--260 mi² (670 km²), approximately, of which about 13 mi² (34 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 2119: 1948-56(M), 1957(M), drainage area.

GAGE.--Water-stage recorder. Concrete control since June 1956. Datum of gage is 3,204.57 ft (976.753 m) above mean sea level.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by diversion about 0.5 mi (0.8 km) upstream for irrigation of 880 acres (3.56 km²).

AVERAGE DISCHARGE.--37 years, 7.76 ft³/s (0.220 m³/s), 5,620 acre-ft/yr (6.93 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 140 ft³/s (3.96 m³/s) June 27, 1948, gage height, 4.37 ft (1.332 m); maximum gage height, 5.93 ft (1.807 m) Jan. 3, 1976, backwater from ice; no flow at times in 1955, 1968, 1973-77.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24 ft³/s (0.68 m³/s) Apr. 19 at 2300, gage height, 5.22 ft (1.591 m); no other peak above base of 20 ft³/s (0.57 m³/s); maximum gage height, 6.01 ft (1.832 m), Mar. 15, backwater from ice; no flow June 10,11, July 16,17,21-24, Aug. 1-3,10-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	7.5	8.0	6.0	7.9	8.0	9.1	8.8	.60	.08	.00	3.5
2	8.0	7.1	6.8	6.2	7.8	7.8	10	9.8	.62	.08	.00	3.1
3	7.7	6.9	4.6	6.4	7.8	3.0	11	9.7	1.2	.08	.00	3.1
4	7.3	6.8	3.2	6.8	7.5	12	11	9.1	.98	.06	.01	3.1
5	7.0	6.8	2.5	6.6	7.4	10	11	8.8	.06	.06	4.9	3.4
6	7.3	6.6	1.8	6.8	7.8	9.8	9.6	8.5	.01	.12	.01	3.3
7	8.0	6.8	2.2	7.6	7.8	9.8	9.1	8.3	.23	.08	.01	3.0
8	7.6	6.6	2.7	7.8	7.8	9.8	9.1	8.4	.12	.08	.01	2.7
9	7.0	6.8	6.8	7.0	7.6	9.0	9.1	8.2	.02	.07	.01	2.6
10	6.6	6.3	7.3	6.6	7.6	9.0	9.3	8.0	.00	.06	.00	2.6
11	6.3	6.2	7.6	6.6	7.6	7.6	8.8	8.0	.00	.08	.00	2.6
12	6.0	6.2	8.0	6.4	7.8	7.6	8.8	8.1	.01	.01	.00	2.7
13	6.8	6.6	7.9	6.6	8.0	7.8	8.9	8.0	.01	.01	.00	2.7
14	6.2	6.7	7.9	7.0	8.2	8.0	11	7.9	.01	.01	.00	2.6
15	5.7	6.9	7.9	6.4	8.0	10	14	7.8	.01	.01	1.4	2.5
16	6.0	7.0	7.9	6.0	8.5	12	13	7.8	.01	.00	1.7	2.8
17	6.1	6.7	7.9	6.4	8.2	18	11	7.2	.01	.00	2.9	2.5
18	6.1	6.7	7.9	6.2	8.0	17	10	7.0	.01	.01	1.1	2.7
19	6.0	6.9	7.9	7.2	8.8	16	12	7.0	.30	.01	1.2	2.7
20	5.9	6.4	7.0	7.6	8.5	15	20	7.1	.02	.01	1.9	3.0
21	6.9	6.2	7.0	7.8	8.4	13	18	9.8	.01	.00	3.9	3.1
22	7.5	5.2	7.2	8.0	8.2	12	12	11	.01	.00	4.0	3.1
23	7.0	5.8	7.2	7.8	8.9	11	11	7.9	.01	.00	4.2	3.1
24	6.6	5.5	7.8	7.8	7.0	11	9.9	7.0	.06	.00	4.8	3.1
25	6.6	5.2	7.8	7.8	7.7	11	9.5	7.1	.03	3.9	4.4	3.1
26	7.5	3.0	8.2	7.6	8.2	11	9.1	7.1	.01	3.4	4.6	3.2
27	10	7.8	7.6	7.4	8.2	11	9.2	1.9	.02	.01	4.7	3.1
28	9.7	3.5	6.8	7.6	8.2	11	9.0	.71	.01	.01	4.6	3.2
29	9.0	3.7	6.8	7.6	---	11	8.9	.67	.00	.01	4.0	3.2
30	8.4	4.0	6.6	7.2	---	8.7	8.8	.64	.00	.01	3.8	3.0
31	7.9	---	6.0	7.8	---	8.9	---	.60	---	.01	3.6	---
TOTAL	223.1	183.8	193.6	218.0	221.5	325.6	317.6	218.18	6.01	7.06	62.69	87.7
MEAN	7.20	6.13	6.25	7.03	7.91	10.5	10.6	7.04	.20	.23	2.02	2.92
MAX	10	7.8	8.2	8.0	8.9	18	20	11	1.2	3.9	5.5	3.5
MIN	5.7	3.0	1.8	6.0	7.0	3.0	8.8	.60	.00	.00	.00	2.5
AC-FT	443	365	384	432	439	646	630	433	12	14	124	174

CAL YR 1976 TOTAL 1910.73 MEAN 5.28 MAX 15 MIN .00 AC-FT 3810
WTR YR 1977 TOTAL 2074.76 MEAN 5.68 MAX 20 MIN .00 AC-FT 4120

06824000 ROCK CREEK AT PARKS, NE

LOCATION.--Lat 40°02'30", long 101°43'40", in SW1/4NE1/4 sec.21, T.1 N., R.39 W., Dundy County, Hydrologic Unit 10250002, on right bank at west edge of Parks, 100 ft (30 m) downstream from county road bridge and 0.5 mi (0.8 km) upstream from mouth.

DRAINAGE AREA.--20 mi² (52 km²), approximately, of which about 17 mi² (44 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 1630: 1951(M). WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,093.35 ft (942.853 m) above mean sea level.

REMARKS.--Records good except those for winter period, which are poor. One diversion about 2 mi (3 km) above station for irrigation of 215 acres (870,000 m²); flow regulated at times by reservoir at State fish hatchery 7 mi (11 km) upstream.

AVERAGE DISCHARGE.--37 years, 14.2 ft³/s (0.402 m³/s), 10,290 acre-ft/yr (12.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 493 ft³/s (14.0 m³/s) July 5, 1965, gage height, 6.00 ft (1.829 m), from rating curve extended above 40 ft³/s (1.13 m³/s) on basis of slope-conveyance study; minimum daily, 2.6 ft³/s (0.074 m³/s) Nov. 19, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 25 ft³/s (0.71 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 16	0030			a*3.97	1.210	June 13	1600	*36	1.0	3.09	0.942
Mar. 17	unknown	b30	0.8	unknown							

a backwater from ice
b about, backwater from ice

Minimum daily discharge, 9.0 ft³/s (0.25 m³/s) July 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	15	13	12	14	14	15	15	14	12	11	12
2	12	15	13	14	14	14	16	15	14	12	12	13
3	12	15	13	14	14	12	17	14	14	12	11	14
4	12	15	13	14	14	11	18	14	13	12	12	13
5	12	15	13	12	14	11	15	13	13	12	14	13
6	13	15	13	12	14	12	13	13	12	11	13	13
7	14	15	13	13	14	13	12	13	12	9.7	13	12
8	13	15	13	13	14	12	12	12	12	9.8	13	12
9	12	14	13	12	14	12	12	12	13	9.6	12	11
10	12	13	14	11	14	12	12	12	12	9.6	12	11
11	12	13	13	11	14	11	12	12	12	9.6	12	11
12	11	13	13	12	14	11	12	12	15	9.6	12	12
13	11	13	12	12	14	13	13	12	31	9.4	12	12
14	11	14	11	13	14	16	13	12	21	9.4	13	12
15	12	14	11	12	14	20	15	12	17	9.4	12	11
16	12	14	11	12	14	22	16	12	15	9.4	12	12
17	12	14	11	12	13	25	16	11	14	9.2	12	12
18	12	15	11	11	13	25	16	11	13	9.2	13	12
19	12	15	11	14	14	24	16	12	14	9.1	12	12
20	11	15	11	15	13	22	20	12	14	9.0	13	12
21	12	13	11	13	13	19	20	15	13	9.3	13	12
22	12	14	10	13	13	18	18	14	14	9.4	13	12
23	12	14	10	12	14	19	17	14	14	10	13	11
24	12	14	10	13	14	19	15	13	13	10	13	11
25	12	13	11	12	14	21	14	13	13	13	15	11
26	14	13	12	13	14	18	14	13	13	13	14	11
27	16	12	12	13	13	16	16	13	13	13	13	11
28	15	12	12	13	13	17	17	13	13	13	13	11
29	15	12	11	13	---	16	16	13	13	13	13	11
30	15	13	11	14	---	15	15	14	13	12	13	12
31	15	---	10	14	---	15	---	14	---	12	13	---
TOTAL	391	417	366	394	385	505	453	400	427	330.7	392	355
MEAN	12.6	13.9	11.8	12.7	13.8	16.3	15.1	12.9	14.2	10.7	12.6	11.8
MAX	16	15	14	15	14	25	20	15	31	13	15	14
MIN	11	12	10	11	13	11	12	11	12	9.0	11	11
AC-FT	776	827	726	781	764	1000	899	793	847	656	778	704

CAL YR 1976 TOTAL 4469.6 MEAN 12.2 MAX 17 MIN 9.4 AC-FT 8870
WTR YR 1977 TOTAL 4815.7 MEAN 13.2 MAX 31 MIN 9.0 AC-FT 9550

06824500 REPUBLICAN RIVER AT BENKELMAN, NE

LOCATION.--Lat 40°01'55", long 101°32'30", in SE1/4SE1/4 sec.19, T.1 N., R.37 W., Dundy County, Hydrologic Unit 10250002, on right bank 150 ft (46 m) downstream from bridge on U.S. Highway 34, 0.6 mi (1.0 km) south of Burlington Northern Inc. track, 1 mi (2 km) southeast of Benkelman, 2 mi (3 km) upstream from South Fork Republican River, and 11 mi (18 km) downstream from Rock Creek.

DRAINAGE AREA.--4,830 mi² (12,500 km²), approximately, of which about 1,230 mi² (3,190 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1894 to September 1895 (published as North Fork Republican River at Benkelman), October 1902 to November 1906, October 1946 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1895. WSP 1919: 1952, 1956. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,975.36 ft (906.890 m) above mean sea level. Prior to Dec. 17, 1946, nonrecording gages at several sites within 1.5 mi (2.4 km) of present site at various datums; Dec. 17, 1946, to May 26, 1972, water-stage recorder at site 150 ft (46 m) upstream at same datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation developments above station.

AVERAGE DISCHARGE.--36 years, 89.8 ft³/s (2.543 m³/s), 65,060 acre-ft/yr (80.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,040 ft³/s (171 m³/s) Sept. 7, 1951, gage height, 7.58 ft (2.310 m); maximum gage height, 7.80 ft (2.377 m) Aug. 9, 1950; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1926, 13.1 ft (3.99 m) May 31, 1935, from elevations furnished by State Highway Department.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 550 ft³/s (15.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 20	1915	*2880	81.6	5.16	1.573
May 3	0445	562	15.9	3.59	1.094

No flow July 10,13-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	56	70	70	75	82	116	113	77	11	3.6	35
2	11	53	80	60	75	80	124	130	72	10	4.4	45
3	12	50	85	64	70	75	139	339	61	9.3	3.9	13
4	12	60	80	64	80	75	160	194	66	7.5	3.8	12
5	12	55	70	60	80	80	162	230	35	5.7	10	12
6	14	54	72	62	82	85	132	104	30	5.2	9.9	12
7	19	54	72	70	84	90	126	98	30	3.7	7.3	11
8	18	53	76	66	84	95	116	94	27	2.9	5.7	9.0
9	20	50	76	60	86	96	105	97	23	.66	5.5	7.6
10	20	64	76	54	86	88	103	88	16	.00	4.4	7.2
11	18	67	78	56	88	70	99	65	15	.13	4.8	7.8
12	16	64	80	56	90	5.0	91	51	12	.03	4.9	8.7
13	14	58	80	58	90	5.5	90	38	19	.00	3.1	9.6
14	14	68	82	60	92	80	116	37	35	.00	2.5	8.4
15	14	70	82	58	85	130	175	39	20	.00	3.4	6.8
16	12	71	84	55	85	155	226	42	15	.00	2.4	6.8
17	12	73	84	57	88	276	193	38	15	.00	3.6	6.9
18	13	74	86	57	90	178	160	34	13	.00	3.7	8.5
19	16	73	71	60	90	239	137	31	24	.00	4.1	8.6
20	23	84	66	75	92	210	1230	30	16	.00	4.0	4.0
21	27	83	60	90	92	160	226	64	51	.00	6.7	4.3
22	26	73	62	100	90	151	255	86	42	.01	5.3	3.3
23	23	79	70	110	88	235	226	70	133	.51	5.7	3.1
24	22	75	70	110	88	220	187	59	69	.05	6.9	1.7
25	22	86	75	110	86	239	161	53	60	12	56	2.8
26	27	80	98	115	88	212	151	55	34	6.8	17	3.2
27	50	72	105	120	82	180	147	64	26	6.5	16	3.4
28	60	65	100	100	82	194	133	58	20	5.7	15	3.6
29	66	68	100	80	---	150	121	59	17	5.0	15	4.1
30	65	70	90	65	---	120	115	95	13	3.9	12	4.6
31	59	---	80	70	---	109	---	98	---	3.1	8.8	---
TOTAL	747	2010	2460	2296	2392	4168.5	5497	2662	1113	100.37	257.4	260.8
MEAN	24.1	67.0	79.4	74.1	85.4	134	183	85.9	37.1	3.24	8.30	8.69
MAX	66	86	105	120	92	276	1230	339	133	12	56	45
MIN	10	50	60	54	75	5.0	91	30	13	.00	2.4	1.7
AC-FT	1480	3990	4880	4550	4740	8270	10900	5280	2210	199	511	517

CAL YR 1976 TOTAL 18954.03 MEAN 51.8 MAX 183 MIN .00 AC-FT 37600
WTR YR 1977 TOTAL 23964.07 MEAN 65.7 MAX 1230 MIN .00 AC-FT 47530

06827500 SOUTH FORK REPUBLICAN RIVER NEAR BENKELMAN, NE

LOCATION.--Lat 40°00'36", long 101°32'32", in SE1/4SE1/4 sec.31, T.1 N., R.37 W., Dundy County, Hydrologic Unit 10250003, on right bank 100 ft (30 m) upstream from bridge on State Highway 61, 1 mi (2 km) downstream from Kansas-Nebraska State line, 2.5 mi (4.0 km) southwest of Benkelman, and 4 mi (6 km) upstream from mouth.

DRAINAGE AREA.--2,740 mi² (7,100 km²), approximately, of which about 2,190 mi² (5,670 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1894 to September 1895, October 1902 to November 1906, October 1930 to September 1932, August 1937 to current year. Published as South Fork of Republican River at Benkelman prior to 1906 and as Republican River at Benkelman 1931-32. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1904-6, 1931. WSP 1390: 1940, 1945, 1947. WSP 1919: 1951-52, 1954-56. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,990.91 ft (911.629 m) above mean sea level. Prior to Dec. 10, 1947, nonrecording gages at several sites within 3.5 mi (5.6 km) of present site at various datums. Dec. 10, 1947, to Sept. 28, 1966, water-stage recorder 130 ft (40 m) downstream at datum 2.00 ft (0.610 m) higher, and Sept. 29, 1966, to Mar. 7, 1968, at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow affected by irrigation development above station, and since July 8, 1950, by storage in Bonny Reservoir.

AVERAGE DISCHARGE.--47 years, 53.8 ft³/s (1.524 m³/s), 38,980 acre-ft/yr (48.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge determined, 19,600 ft³/s (555 m³/s) Aug. 16, 1958, gage height, 8.70 ft (2.652 m), site and datum then in use, but may have been higher during flood of June 24, 1945; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1923, 10.1 ft (3.08 m) May 31, 1935, from floodmarks at site 0.2 mile downstream, at datum 2.00 ft (0.610 m) higher, discharge, 150,000 ft³/s (4,250 m³/s), by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 516 ft³/s (14.6 m³/s) Aug. 26, gage height, 4.39 ft (1.338 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	98	37	100	7.8	.00	.00	.00
2	.00	.00	.00	.00	.00	104	39	77	7.8	.00	.00	.00
3	.00	.00	.00	.00	.00	62	39	195	11	.00	.00	.00
4	.00	.00	.00	.00	11	130	42	87	6.0	.00	.00	.00
5	.00	.00	.00	.00	50	116	38	56	2.7	.00	.00	.00
6	.00	.00	.00	.00	70	96	34	43	1.1	.00	.00	.00
7	.00	.00	.00	.00	95	77	31	34	.30	.00	.00	.00
8	.00	.00	.00	.00	110	63	27	36	.00	.00	.00	.00
9	.00	.00	.00	.00	110	56	26	35	.00	.00	.00	.00
10	.00	.00	.00	.00	120	57	23	25	.00	.00	.00	.00
11	.00	.00	.00	.00	120	65	22	22	.20	.00	.00	.00
12	.00	.00	.00	.00	120	32	22	19	.00	.00	.00	.00
13	.00	.00	.00	.00	120	80	22	17	.00	.00	.00	.00
14	.00	.00	.00	.00	116	49	26	18	3.7	.00	.00	.00
15	.00	.00	.00	.00	110	50	33	19	3.2	.00	.00	.00
16	.00	.00	.00	.00	112	70	36	17	.00	.00	.00	.00
17	.00	.00	.00	.00	112	127	66	13	.00	.00	.00	.00
18	.00	.00	.00	.00	110	130	91	12	.00	.00	.00	.00
19	.00	.00	.00	.00	110	150	99	12	.05	.00	.00	.00
20	.00	.00	.00	.00	112	125	127	12	.84	.00	.00	.00
21	.00	.00	.00	.00	112	98	133	42	.60	.00	.00	.00
22	.00	.00	.00	.00	116	93	110	43	.00	.00	.00	.00
23	.00	.00	.00	.00	110	84	106	27	.00	.00	.00	.00
24	.00	.00	.00	.00	110	69	106	18	.00	.00	.00	.00
25	.00	.00	.00	.00	104	60	100	17	.00	.00	44	.00
26	.00	.00	.00	.00	104	53	106	22	.00	.00	246	.00
27	.00	.00	.00	.00	102	49	106	16	.00	.00	51	.00
28	.00	.00	.00	.00	100	54	102	17	.00	.00	12	.00
29	.00	.00	.00	.00	---	50	100	17	.00	.00	5.6	.00
30	.00	.00	.00	.00	---	61	102	16	.00	.00	1.3	.00
31	.00	---	.00	.00	---	36	---	11	---	.00	.00	---
TOTAL	.00	.00	.00	.00	2566.00	2398	1958	1090	45.39	.00	359.90	.00
MEAN	.000	.000	.000	.000	91.6	77.4	65.3	35.2	1.51	.000	11.6	.000
MAX	.00	.00	.00	.00	120	150	133	195	11	.00	246	.00
MIN	.00	.00	.00	.00	.00	32	22	11	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	5090	4760	3880	2160	90	.00	714	.00

CAL YR 1976 TOTAL 3971.32 MEAN 10.9 MAX 136 MIN .00 AC-FT 7880
WTR YR 1977 TOTAL 8417.21 MEAN 23.1 MAX 246 MIN .00 AC-FT 16700

06828500 REPUBLICAN RIVER AT STRATTON, NE

LOCATION.--Lat 40°08'20", long 101°13'42", in SW1/4NW1/4 sec.13, T.2 N., R.35 W., Hitchcock County, Hydrologic Unit 10250004, on right bank at downstream side of county bridge, 0.5 mi (0.8 km) south of Stratton, 0.2 mi (0.3 km) downstream from Muddy Creek, 10 mi (16 km) upstream from Trenton Dam, and 19 mi (31 km) downstream from South Fork Republican River.

DRAINAGE AREA.--8,450 mi² (21,900 km²), approximately, of which about 3,800 mi² (9,840 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--July 1950 to current year.

REVISED RECORDS.--WSP 2119: Drainage area. WDR NE-73: 1968-71(M), 1972.

GAGE.--Water-stage recorder. Datum of gage is 2,775.49 ft (845.969 m) above mean sea level. Prior to Aug. 1, 1967, at site 0.3 mi (0.5 km) downstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station and by storage in Bonny Reservoir (station 06826000).

AVERAGE DISCHARGE.--27 years, 136 ft³/s (3.852 m³/s), 98,530 acre-ft/yr (0.121 km³/yr); median of yearly mean discharges, 120 ft³/s (3.398 m³/s), 86,900 acre-ft/yr (0.107 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,800 ft³/s (759 m³/s) July 31, 1962, gage height, 9.34 ft (2.847 m), site then in use; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1826 occurred May 31, 1935, discharge, about 200,000 ft³/s (5,660 m³/s), based on slope-area measurement at Max.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,410 ft³/s (68.3 m³/s) Apr. 20, gage height, 8.39 ft (2.557 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	50	50	75	163	176	210	86	3.2	.00	.00
2	.00	.00	52	45	75	195	195	195	58	.82	.00	80
3	.00	9.0	56	40	80	181	195	348	172	.20	.00	63
4	.00	45	60	40	95	149	205	324	78	.08	.00	26
5	.00	54	58	35	110	258	190	235	48	.00	.00	19
6	.00	61	56	40	140	225	190	210	35	.00	.00	9.0
7	.00	63	58	50	200	205	167	141	27	.00	.00	2.3
8	.00	66	60	45	220	167	149	131	23	.00	.00	.32
9	.00	66	60	40	230	141	134	110	21	.00	.00	.00
10	.00	70	60	40	230	134	120	104	17	.00	.00	.00
11	.00	30	64	42	230	110	107	95	13	.00	.00	.00
12	.00	13	66	42	230	50	101	86	20	.00	.00	.00
13	.00	20	70	45	230	75	98	73	150	.00	.00	.00
14	.00	35	75	50	230	85	107	61	98	.00	.00	.00
15	.00	55	75	48	200	80	158	58	68	.00	.00	.00
16	.00	80	80	45	176	141	215	56	46	.00	.00	.00
17	.00	100	95	45	172	332	210	50	34	.00	.00	.00
18	.00	117	100	45	172	420	215	46	27	.00	.00	.00
19	.00	113	95	50	167	460	210	45	21	.00	.00	.00
20	.00	113	75	65	158	420	945	39	29	.00	.00	.00
21	.00	113	77	65	163	324	490	110	39	.00	.00	.00
22	.00	113	77	68	167	264	348	154	50	.00	.00	.00
23	.00	95	80	68	195	270	324	138	46	.00	.00	.00
24	.00	80	80	70	190	264	282	101	75	.00	5.8	.00
25	.00	82	80	70	172	258	264	78	63	.00	104	.00
26	.00	80	90	72	181	252	246	75	43	.00	6.4	.00
27	.00	64	95	80	181	230	235	73	27	.00	54	.00
28	.00	45	95	78	181	240	225	70	21	.00	7.7	.00
29	.00	48	90	72	---	246	215	68	16	.00	.36	.00
30	.00	48	70	66	---	215	215	75	10	.00	.08	.00
31	.00	---	60	71	---	190	---	92	---	.00	.00	---
TOTAL	.00	1878.00	2259	1682	4850	6744	6931	3651	1461	4.30	178.34	199.62
MEAN	.000	62.6	72.9	54.3	173	218	231	118	48.7	.14	5.75	6.65
MAX	.00	117	100	80	230	460	945	348	172	3.2	104	80
MIN	.00	.00	50	35	75	50	98	39	10	.00	.00	.00
AC-FT	.00	3730	4480	3340	9620	13380	13750	7240	2900	8.5	354	396

CAL YR 1976 TOTAL 24048.80 MEAN 65.7 MAX 233 MIN .00 AC-FT 47700
WTR YR 1977 TOTAL 29838.26 MEAN 81.7 MAX 945 MIN .00 AC-FT 59180

06829000 SWANSON LAKE NEAR TRENTON, NE

LOCATION.--Lat 40°10'10", long 101°03'35", in SE1/4NE1/4 sec.5, T.2 N., R.33 W., Hitchcock County, Hydrologic Unit 10250004, in gate-control house at right end of spillway on downstream side of Trenton Dam on Republican River, 2.5 mi (4.0 km) west of Trenton.

DRAINAGE AREA.--8,620 mi^2 (22,300 km^2), approximately, of which about 3,940 mi^2 (10,200 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--May 1953 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Gage is referred to mean sea level. Prior to Nov. 13, 1953, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam; storage began May 4, 1953. Capacity, 116,100 acre-ft (0.143 km^3) between elevations 2,710.0 ft (826 m), sill of outlet gates, and 2,752.0 ft (839 m), top of storage pool. Top of flood-control pool is at elevation 2,773.0 ft (845 m), capacity, 254,000 acre-ft (0.313 km^3). Top of superstorage flood-control pool at elevation 2,785.0 ft (849 m), capacity, 361,600 acre-ft (0.446 km^3). Dead storage, 4,100 acre-ft (5.06 hm^3). Figures given herein represent total contents. Water used for irrigation in Frenchman-Cambridge irrigation project.

COOPERATION.--Capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 148,900 acre-ft (0.184 km^3) Aug. 2, 3, 1962, elevation, 2,757.42 ft (840.462 m); minimum since operation of reservoir began, 19,950 acre-ft (24.6 hm^3) Oct. 24, 1954, elevation, 2,722.61 ft (829.852 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 78,060 acre-ft (96.2 hm^3) June 6, 7, elevation, 2,742.63 ft (835.954 m); minimum contents, 26,500 acre-ft (32.7 hm^3) Nov. 12-15, elevation, 2,725.90 ft (830.854 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,725	24,600	2,740	67,730
2,730	36,050	2,745	87,930
2,735	50,200		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26950	26580	27230	30090	32620	41620	55090	69640	77130	71580	47230	39860
2	26930	26560	27230	30130	32720	42100	55530	70110	77290	70490	46720	40520
3	26930	26560	27280	30300	32880	42330	55940	70650	77250	69370	46170	40660
4	26910	26560	27340	30320	33030	42470	56310	71190	77250	68260	45750	40630
5	26910	26560	27430	30390	33170	42870	56650	71460	77730	67020	45570	40600
6	26880	26560	27490	30460	33340	43300	56990	71780	78060	65930	45310	40520
7	26880	26560	27520	30530	33560	43590	57340	72130	78060	64700	45070	40440
8	26880	26580	27540	30600	33820	43840	57650	72400	77980	63630	44780	40300
9	26880	26580	27580	30690	34120	44100	57890	72560	77850	62570	44310	40300
10	26860	26520	27600	30760	34460	44340	58100	72830	77690	61600	43900	40240
11	26860	26520	27690	30810	34830	44690	58380	72990	77490	60670	43530	40240
12	26860	26500	27820	30830	35330	45010	58660	73150	77450	59710	43210	40220
13	26840	26500	27980	30880	35880	45400	58830	73270	77490	59040	42810	40220
14	26820	26500	28130	30880	36350	45630	59080	73380	77530	58310	42520	40190
15	26800	26500	28270	30920	36790	45840	59540	73460	77490	57690	42240	40160
16	26800	26520	28420	30970	37170	46140	59990	73540	77410	56990	41850	40130
17	26780	26600	28600	31080	37530	46690	60450	73580	77250	56280	41040	40110
18	26750	26690	28730	31130	37870	47630	60920	73700	76930	55530	40660	40080
19	26730	26710	28840	31180	38180	48620	61450	73740	76850	54620	40350	39920
20	26710	26800	28980	31250	38530	49430	62900	74130	76730	53850	40110	39890
21	26710	26840	29020	31340	38900	50120	64510	75240	76530	53190	39840	39860
22	26710	26910	29070	31440	39350	50670	65220	75320	76400	52670	39570	39780
23	26690	26990	29140	31530	39760	51150	65850	75560	76320	52050	39410	39780
24	26690	27120	29200	31670	40000	51660	66410	75760	76080	51370	39380	39680
25	26690	27230	29340	31790	40350	52090	66980	75960	75920	50830	40220	39620
26	26670	27230	29450	31910	40660	52510	67390	76200	75640	50250	40220	39570
27	2665C	27230	29610	32000	40980	52930	67840	76240	75400	49650	40220	39570
28	26630	27260	29840	32120	41290	53790	68300	76280	74810	49120	40160	39540
29	26630	27260	29900	32240	---	54290	68760	76320	73740	48560	40130	39540
30	26630	27230	29990	32400	---	54420	69220	76360	72760	48000	40110	39510
31	26600	---	30040	32480	---	54720	---	76690	---	47630	39920	---
MAX	26950	27260	30040	32480	41290	54720	69220	76690	78060	71580	47230	40660
MIN	26600	26500	27230	30090	32620	41620	55090	69640	72760	47630	39380	39510
≠	a(2725.95)	2726.24	2727.50	2728.54	2731.98	2736.36	2740.39	2742.29	2741.30	2738.15	2731.48	2731.33
ø	-350	+630	+2810	+2440	+8810	+13430	+14500	+7470	-3930	-25130	-7710	-410

CAL YR 1976 MAX 82330 MIN 26500 ø-37430
WTR YR 1977 MAX 78060 MIN 26500 ø+12560

≠Elevation, in feet, at end of month.
øChange in contents, in acre-feet.

06829500 REPUBLICAN RIVER AT TRENTON, NE

LOCATION.--Lat 40°10'00", long 101°02'40", in SE1/4 sec.4, T.2 N., R.33 W., Hitchcock County, Hydrologic Unit 10250004, on left bank 300 ft (91 m) upstream from Elm Creek, 0.9 mi (1.4 km) downstream from centerline of spillway of Trenton Dam, and 1.5 mi (2.4 km) southwest of Trenton.

DRAINAGE AREA.--8,620 mi² (22,300 km²), approximately, of which about 3,940 mi² (10,200 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.-- WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,671.06 ft (814.139 m) above mean sea level. See WSP 2119 for history of changes prior to Oct. 1, 1959.

REMARKS.--Records fair. Natural flow affected by irrigation development above station, since July 6, 1950, by storage in Bonny Reservoir (station 06826000), since 1953 by storage in Swanson Lake (station 06829000), and since June 1957 by Meeker-Driftwood Canal which diverts directly from Swanson Lake for irrigation of about 16,400 acres (66.4 km²). Periodic water quality measurements are published in tables for water quality at partial-record sites.

AVERAGE DISCHARGE.--31 years, 94.0 ft³/s (2.662 m³/s), 68,100 acre-ft/yr (84.0 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,800 ft³/s (476 m³/s) June 16, 1948, gage height, 5.64 ft (1.719 m), former site and datum; no flow at times in 1947-50, 1952-54.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Maximum flood known since about 1826 occurred May 31, 1935, discharge, about 200,000 ft³/s (5,660 m³/s). Discharge of 21,100 ft³/s (598 m³/s) was measured July 3, 1946, gage height, 6.0 ft (1.83 m), former site and datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 273 ft³/s (7.73 m³/s) June 29, gage height, 4.70 ft (1.433 m); minimum daily, 0.38 ft³/s (0.011 m³/s) Aug. 21,22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.77	.88	1.0	.94	.70	1.0	1.0	.67	.85	244	48	.86
2	.77	.85	.85	.85	.70	1.1	1.1	.64	1.1	234	48	1.2
3	.77	.85	.85	.85	.72	1.2	1.2	.64	1.3	226	35	.95
4	.77	.85	.94	.85	.72	.98	1.1	.62	1.2	218	25	.82
5	.80	.85	.94	.85	.70	.93	1.1	.57	1.1	212	24	.88
6	.96	.85	.95	.77	.70	.93	1.1	.62	1.2	206	16	.83
7	.95	.85	1.0	.77	.70	.88	1.1	.59	1.2	208	8.1	.82
8	.88	.91	.85	.87	.70	.85	1.1	.63	1.2	193	7.1	.71
9	.77	.92	.85	.77	.69	.85	1.1	.58	1.2	162	6.5	.60
10	.77	.85	.89	.77	.70	.92	1.1	.58	1.2	163	5.5	.60
11	.81	.88	.85	.76	.73	.95	1.1	.64	1.1	163	5.7	.60
12	.85	.86	.77	.70	.77	.90	1.1	.61	1.2	161	3.4	.65
13	.85	.87	.80	.70	.91	.96	1.0	.64	1.1	122	.89	.63
14	.85	.94	.89	.70	.85	1.2	1.1	.64	.95	88	.75	.52
15	.82	1.0	.92	.66	.89	.93	1.2	.70	.90	86	.82	.52
16	.85	1.0	.76	.67	.99	.91	1.1	.68	.81	87	.75	.52
17	.85	1.0	.72	.70	.96	1.1	1.0	.65	.77	89	.68	.52
18	.92	1.0	.70	.68	.83	1.1	.93	.67	.72	52	.68	.50
19	.69	1.0	.70	.68	.73	1.3	.89	.64	.73	51	.60	.85
20	.85	.96	.73	.66	.80	1.0	1.2	.63	.64	51	.45	.50
21	.85	.91	.70	.67	.92	.95	1.0	.63	.60	50	.38	.88
22	.85	.95	.72	.70	.98	.97	1.0	.77	.62	50	.38	.82
23	.85	.94	.70	.64	1.3	.89	.94	.94	.65	50	.72	.55
24	.85	1.0	.70	.64	1.0	.88	.89	.94	.55	51	.79	.85
25	.85	1.0	.65	.65	1.1	.79	.85	.85	.51	50	.93	.58
26	.85	.95	.66	.64	1.1	.79	.85	.85	.87	50	.90	.60
27	.77	1.0	.90	.67	1.0	.82	.84	.77	11	50	.70	.60
28	.77	1.1	1.1	.67	.99	1.3	.74	.68	51	49	.86	.63
29	.77	1.1	.90	.59	---	.96	.80	.77	114	48	.83	.67
30	.77	1.1	.94	.65	---	.90	.75	.94	257	48	.80	.67
31	.77	---	.97	.69	---	.85	---	.85	---	48	.67	---
TOTAL	25.46	28.10	25.98	22.41	23.88	30.09	30.20	21.63	456.87	3397	245.88	19.39
MEAN	.82	.94	.84	.72	.85	.57	1.01	.70	15.2	110	7.93	.65
MAX	.96	1.1	1.1	.94	1.3	1.3	1.2	.94	257	244	48	1.2
MIN	.69	.88	.65	.59	.69	.79	.74	.57	.47	48	.38	.82
AC-FT	50	56	52	44	47	60	60	43	906	6740	489	38

CAL YR 1976 TOTAL 14300.20 MEAN 39.1 MAX 370 MIN .65 AC-FT 28360
WTR YR 1977 TOTAL 4327.05 MEAN 11.9 MAX 257 MIN .38 AC-FT 8589

06829500 REPUBLICAN RIVER AT TRENTON, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)
OCT							
07...	1215	1.0	760	8.2	14.0	3	11.9
NOV							
12...	1100	.80	840	7.9	6.0	6	16.0
DEC							
14...	1200	1.0	750	7.7	6.0	3	14.8
JAN							
21...	1045	.80	720	7.6	2.0	4	12.1
JUL							
20...	1115	25	500	8.4	27.0	20	8.5
AUG							
22...	1100	.80	610	8.0	25.0	5	9.5
SEP							
20...	0950	1.0	560	7.8	19.0	6	12.0

DATE	TIME	COLOR (PLATINUM-COBALT UNITS) (00080)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)
JAN											
21...	1045	3	3	66	22	61	1.7	14	308	0	253
JUL											
20...	1115	7	3	42	21	47	1.5	15	230	0	190

DATE	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED FLUORIDE (F) (MG/L) (00950)	DISSOLVED SILICA (SIO2) (MG/L) (00955)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DISSOLVED SOLIDS (TONS PER DAY) (70302)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)	DISSOLVED BORON (B) (UG/L) (01020)
JAN										
21...	110	19	1.2	37	487	1.05	.66	.99	.02	160
JUL										
20...	93	10	1.3	8.3	351	23.7	.48	.04	.02	120

06831500 FRENCHMAN CREEK NEAR IMPERIAL, NE

LOCATION.--Lat 40°25'45", long 101°37'25", in SW1/4NW1/4 sec.3, T.5 N., R.38 W., Chase County, Hydrologic Unit 10250005, on right bank 0.2 mi (0.3 km) downstream from bridge on county highway, 5.8 mi (9.3 km) upstream from Enders Dam, and 6.1 mi (9.8 km) south of Imperial.

DRAINAGE AREA.--880 mi² (2,280 km²), approximately, of which about 720 mi² (1,860 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1940 to current year. Published as Frenchman River near Imperial October 1965 to September 1972.

REVISED RECORDS.--WSP 976: 1942(M). WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Prior to Mar. 7, 1941, nonrecording gage at bridge 0.2 mi (0.3 km) upstream at different datum. Mar. 7, 1941, to Sept. 30, 1958, water-stage recorder at site 0.2 mi (0.3 km) downstream at datum 4.35 ft (1.326 m) lower.

REMARKS.--Records good. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--37 years, 67.5 ft³/s (1.912 m³/s), 48,900 acre-ft/yr (60.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,340 ft³/s (66.3 m³/s) Mar. 22, 1960, gage height, 8.43 ft (2.569 m); minimum daily, 4.8 ft³/s (0.14 m³/s) Mar. 12, 1977, backwater from ice.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 7, 1940, reached a stage of 12.4 ft (3.78 m), from floodmarks, site and datum in use Mar. 7, 1941, to Sept. 30, 1958 (discharge not determined but believed greater than that of Mar. 22, 1960).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 135 ft³/s (3.82 m³/s) Mar. 17, backwater from ice; no peak above base of 150 ft³/s (4.25 m³/s); maximum gage height, 1.96 ft (0.597 m) Mar. 17, backwater from ice; minimum daily discharge, 4.8 ft³/s (0.14 m³/s) Mar. 12, backwater from ice.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	36	47	46	47	38	57	44	49	32	31	31
2	32	36	47	47	47	36	58	44	40	32	31	31
3	32	36	53	47	47	36	59	42	46	36	31	31
4	32	36	61	48	47	47	58	42	51	30	31	30
5	32	36	46	47	47	55	57	42	41	38	33	30
6	34	36	23	46	47	52	58	41	38	36	34	34
7	35	36	44	46	47	52	56	42	37	30	32	32
8	35	37	45	44	47	52	52	42	37	31	32	31
9	34	36	46	42	45	51	46	37	35	34	32	31
10	34	36	46	42	44	51	45	37	35	34	31	29
11	33	36	49	43	43	35	43	39	35	30	32	30
12	33	36	47	46	42	4.8	43	38	42	30	29	30
13	33	37	47	47	42	5.6	43	37	42	29	28	30
14	34	37	49	47	46	31	45	38	39	31	29	29
15	33	37	49	46	44	68	49	37	39	30	29	29
16	34	37	49	44	41	79	52	36	39	30	29	29
17	34	37	49	45	39	98	48	35	37	29	29	30
18	35	37	49	43	39	98	46	35	36	29	29	30
19	35	37	48	46	40	87	48	35	37	28	29	29
20	36	37	47	46	40	77	67	35	36	32	29	30
21	36	37	52	46	39	69	58	42	38	33	30	31
22	36	37	48	46	38	62	50	43	39	33	30	30
23	36	37	48	46	40	58	48	39	39	30	32	28
24	36	38	47	47	38	59	46	37	38	30	32	29
25	36	38	49	46	38	63	45	36	38	34	32	27
26	36	38	47	46	38	61	45	36	38	32	30	28
27	36	34	47	46	39	58	44	37	37	31	31	29
28	37	37	48	46	38	59	44	36	36	30	34	30
29	37	44	46	46	---	62	43	35	24	30	33	30
30	37	46	46	46	---	60	45	41	25	30	33	32
31	36	---	45	46	---	57	---	43	---	34	31	---
TOTAL	1070	1115	1464	1415	1189	1721.4	1498	1203	1143	978	958	900
MEAN	34.5	37.2	47.2	45.6	42.5	55.5	49.9	38.8	38.1	31.5	30.9	30.0
MAX	37	46	61	48	47	98	67	44	51	38	34	34
MIN	31	34	23	42	38	4.8	43	35	24	28	28	27
AC-FT	2120	2210	2900	2810	2360	3410	2970	2390	2270	1940	1900	1790

CAL YR 1976 TOTAL 15071.0 MEAN 41.2 MAX 65 MIN 23 AC-FT 29890
WTR YR 1977 TOTAL 14654.4 MEAN 40.1 MAX 98 MIN 4.8 AC-FT 29070

06832000 ENDERS RESERVOIR NEAR ENDERS, NE

LOCATION.--Lat 40°25'05", long 101°30'55", in NE1/4 sec.9, T.5 N., R.37 W., Chase County, Hydrologic Unit 10250005, near right bank in control house at outlet tube of Enders Dam on Frenchman Creek, 2.2 mi (3.5 km) southeast of Enders.

DRAINAGE AREA.--950 mi² (2,460 km²), approximately, of which about 790 mi² (2,050 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Sept. 3, 1960, mercury-column pressure gage at same datum.

REMARKS.--Reservoir is formed by earthfill dam; storage began Oct. 23, 1950. Capacity, 36,010 acre-ft (44.4 hm³) between elevations 3,080.0 ft (939 m), sill of outlet gates, and 3,112.3 ft (949 m), top of storage pool. Top of flood-control pool at elevation 3,127.0 ft (953 m), capacity, 74,520 acre-ft (91.9 hm³). Top of superstorage flood-control pool at elevation 3,129.5 ft (954 m), capacity, 80,730 acre-ft (99.5 hm³). Dead storage, 8,470 acre-ft (10.4 hm³). Figures given herein represent total contents. Water used for irrigation in Frenchman-Cambridge irrigation project.

COOPERATION.--Capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 55,330 acre-ft (68.2 hm³) Mar. 25, 1960, elevation, 3,118.20 ft (950.427 m); minimum since operation of reservoir began, 8,940 acre-ft (11.0 hm³) Sept. 6, 1971, elevation, 3,080.79 ft (939.025 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 34,860 acre-ft (43.0 hm³) June 22,23, elevation, 3,106.20 ft (946.770 m); minimum, 9,770 acre-ft (12.0 hm³) Aug. 24, elevation 3,082.10 ft (939.424 m).

Capacity table (elevation, in feet, and
contents, in acre-feet)

3,080	8,470	3,100	26,540
3,085	11,770	3,110	40,660
3,090	15,830		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13420	15970	18540	21570	24430	26400	29980	32610	34210	32180	16260	10760
2	13440	16060	18650	21680	24520	26600	30060	32680	34260	31590	15780	10840
3	13480	16150	18760	21760	24620	26630	30220	32790	34320	31030	15340	10980
4	13520	16240	18890	21900	24700	26680	30310	32830	34420	30360	14910	11050
5	13600	16330	19030	21990	24780	26790	30410	32860	34420	29650	14490	11160
6	13720	16410	19070	22100	24850	26890	30510	32920	34420	28940	14110	11230
7	13810	16490	19170	22180	24930	26990	30600	32960	34420	28210	13720	11300
8	13910	16570	19280	22240	25050	27110	30680	33030	34430	27560	13320	11390
9	14000	16640	19370	22300	25120	27210	30750	33060	34430	27070	12880	11450
10	14100	16730	19470	22380	25190	27310	30860	33070	34460	26590	12390	11540
11	14190	16810	19580	22470	25290	27410	30880	33130	34500	26080	11880	11650
12	14250	16880	19680	22570	25370	27430	30920	33170	34570	25650	11380	11740
13	14350	16960	19790	22690	25440	27450	31080	33180	34600	25190	10810	11850
14	14450	17080	19880	22790	25490	27460	31190	33230	34650	24770	10320	11930
15	14500	17150	20000	22860	25600	27520	31300	33250	34690	24370	10140	12010
16	14570	17240	20100	22940	25700	27670	31400	33270	34690	23970	10040	12100
17	14640	17340	20210	23050	25740	27860	31480	33300	34710	23530	9940	12200
18	14720	17410	20320	23120	25790	28400	31520	33340	34720	22970	9900	12250
19	14810	17520	20390	23220	25850	28540	31710	33370	34740	22390	9870	12310
20	14900	17580	20470	23350	25920	28670	31870	33480	34720	21730	9850	12410
21	14990	17660	20590	23450	25990	28810	31970	33690	34830	21210	9830	12510
22	15070	17740	20690	23540	26070	28910	32080	33690	34860	20690	9800	12560
23	15160	17830	20780	23630	26140	29020	32180	33750	34860	20210	9780	12630
24	15250	17930	20880	23710	26160	29150	32220	33810	34840	19710	9870	12710
25	15330	18020	20980	23810	26220	29250	32250	33840	34710	19220	10000	12790
26	15410	18070	21090	23910	26280	29370	32320	33880	34560	18770	10120	12890
27	15490	18130	21180	23990	26330	29480	32380	33910	34350	18360	10180	12930
28	15590	18210	21250	24050	26380	29620	32440	33920	33980	17950	10300	13030
29	15700	18310	21340	24160	---	29730	32500	33980	33470	17550	10420	13110
30	15780	18440	21400	24240	---	29750	32540	34110	32790	17110	10580	13200
31	15890	---	21480	24340	---	29850	---	34130	---	16700	10670	---
MAX	15890	18440	21480	24340	26380	29850	32540	34130	34860	32180	16260	13200
MIN	13420	15970	18540	21570	24430	26400	29980	32610	32790	16700	9780	10760
‡	3090.06	3092.76	3095.67	3098.18	3099.87	3102.58	3104.57	3105.70	3104.75	3090.95	3083.44	3086.87
‡	+2560	+2550	+3040	+2860	+2040	+3470	+2690	+1590	-1340	-16090	-6030	+2530

CAL YR 1976 MAX 36630 MIN 9940 ‡-3000
WTR YR 1977 MAX 34860 MIN 9780 ‡ -130

‡ Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

06832500 FRENCHMAN CREEK NEAR ENDERS, NE

LOCATION.--Lat 40°25'05", long 101°30'35", in NW1/4SW1/4 sec.10, T.5 N., R.37 W., Chase County, Hydrologic Unit 10250005, on left bank 0.2 mi (0.3 km) downstream from Enders Dam and 2.5 mi (4.0 km) southeast of Enders.

DRAINAGE AREA.--950 mi² (2,460 km²), approximately, of which about 790 mi² (2,050 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--February 1946 to current year. Published as Frenchman River near Enders October 1965 to September 1972.

REVISED RECORDS.--WSP 2119: 1956, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,026.22 ft (922.392 m) above mean sea level (Bureau of Reclamation bench mark). Prior to June 14, 1948, at site 800 ft (240 m) upstream at datum 6.03 ft (1.838 m) higher. June 14, 1948, to Sept. 14, 1972, at present site at datum 5.00 ft (1.524 m) higher.

REMARKS.--Records good except those below 5.0 ft³/s (0.14 m³/s), which are poor. Flow regulated by Enders Reservoir (station 06832000).

AVERAGE DISCHARGE.--31 years, 66.5 ft³/s (1.883 m³/s), 48,180 acre-ft/yr (59.4 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 763 ft³/s (21.6 m³/s) Aug. 20, 1953, gage height, 11.31 ft (3.447 m), present datum; maximum gage height, 11.65 ft (3.551 m), present datum, July 18, 1950, backwater from downstream tributary; no flow for many days in 1972-77.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 388 ft³/s (11.0 m³/s) July 6,7, gage height, 8.73 ft (2.661 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	1.8	2.2	2.0	7.2	322	279	.12
2	.00	.00	.00	.00	.00	1.8	2.0	2.0	7.3	331	279	.00
3	.00	.00	.00	.00	.00	4.2	1.9	2.0	8.1	344	270	.00
4	.00	.00	.00	.00	.00	5.6	1.9	2.0	7.6	362	265	.00
5	.00	.00	.00	.00	.00	2.0	1.7	2.0	7.8	381	252	.00
6	.00	.00	.00	.00	.00	2.0	1.7	2.0	6.2	384	253	.00
7	.00	.00	.00	.00	.00	2.0	1.7	2.0	7.1	386	250	.00
8	.00	.00	.00	.00	.00	2.0	1.7	2.0	7.1	363	256	.00
9	.00	.00	.00	.00	.00	2.0	1.7	1.9	7.3	343	269	.00
10	.00	.00	.00	.00	.00	2.0	1.7	2.0	6.7	314	288	.00
11	.00	.00	.00	.00	.00	4.4	1.6	2.0	3.4	286	302	.00
12	.00	.00	.00	.00	.00	27	1.6	2.0	3.9	277	309	.00
13	.00	.00	.00	.00	.00	9.1	1.9	2.0	2.7	273	340	.00
14	.00	.00	.00	.00	.00	8.7	2.3	1.9	2.3	255	309	.00
15	.00	.00	.00	.00	.00	8.7	2.2	1.8	2.2	250	150	.00
16	.00	.00	.00	.00	.00	8.7	2.2	1.8	2.0	260	100	.00
17	.00	.00	.00	.00	.00	8.7	1.9	2.7	2.0	282	99	.00
18	.00	.00	.00	.00	.00	8.7	1.8	2.9	9.3	307	92	.00
19	.00	.00	.00	.00	.00	6.1	2.1	3.5	13	335	86	.00
20	.00	.00	.00	.00	.56	2.5	2.4	3.4	20	347	84	.00
21	.00	.00	.00	.00	.67	2.5	2.0	4.9	17	337	84	.00
22	.00	.00	.00	.00	.50	2.5	2.0	3.1	16	320	81	.00
23	.00	.00	.00	.00	8.9	2.5	1.9	2.4	28	308	79	.00
24	.00	.00	.00	.00	2.8	2.3	1.8	2.1	34	297	35	.00
25	.00	.00	.00	.00	1.8	2.2	1.8	1.9	48	289	.74	.00
26	.00	.00	.00	.00	1.8	2.0	1.8	4.4	71	272	.41	.00
27	.00	.00	.00	.00	1.8	2.0	2.0	8.1	123	260	.52	.00
28	.00	.00	.00	.00	2.0	2.2	2.0	7.6	187	251	.52	.00
29	.00	.00	.00	.00	---	2.0	2.0	7.6	273	248	.52	.00
30	.00	.00	.00	.00	---	2.0	2.0	7.6	312	255	.41	.00
31	.00	---	.00	.00	---	2.0	---	6.8	---	272	.41	---
TOTAL	.00	.00	.00	.00	20.83	142.2	57.5	100.4	1242.0	9511	4814.53	.12
MEAN	.000	.000	.000	.000	.74	4.59	1.92	3.24	41.4	307	155	.004
MAX	.00	.00	.00	.00	8.9	27	2.4	8.1	312	386	340	.12
MIN	.00	.00	.00	.00	.00	1.8	1.6	1.8	2.0	248	.41	.00
AC-FT	.00	.00	.00	.00	41	282	114	199	2460	18870	9550	.2

CAL YR 1976 TOTAL 16960.62 MEAN 46.3 MAX 384 MIN .00 AC-FT 33640
WTR YR 1977 TOTAL 15888.58 MEAN 43.5 MAX 386 MIN .00 AC-FT 31510

06834000 FRENCHMAN CREEK AT PALISADE, NE

LOCATION (REVISED).--Lat 40°21'12", long 101°07'35", in SW1/4SE1/4 sec.36, T.5 N., R.34 W., Hayes County, Hydrologic Unit 10250005, on right bank at upstream side of bridge on U.S. Highway 6, 0.7 mi (1.1 km) west of Palisade, and 1.5 mi (2.4 km) upstream from Stinking Water Creek. Prior to Feb. 8, 1977 at site 2000 feet upstream.

DRAINAGE AREA.--1,110 mi^2 (2,870 km^2), approximately, of which about 950 mi^2 (2,460 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1894 to October 1896, June 1950 to current year. Published as Frenchman River at Palisade, October 1965 to September 1972.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE (REVISED).--Water-stage recorder. Datum of gage is 2,743.49 ft (836.216 m) above mean sea level. October 1894 to October 1896, nonrecording gage at railroad bridge 0.4 mi (0.6 km) downstream at different datum; June 1950 to Feb. 7, 1977, recording gage at site 2000 feet upstream at datum 4.0 feet higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station and, since Oct. 23, 1950, by storage in Enders Reservoir (station 06832000). Periodic temperature, conductance, and sediment measurements are published in tables for water quality at miscellaneous sites.

AVERAGE DISCHARGE.--29 years, 89.2 ft^3/s (2.526 m^3/s), 64,630 acre-ft/yr (79.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,560 ft^3/s (157 m^3/s) June 17, 1956, gage height, 8.79 ft (2.679 m), site and datum then in use; minimum daily, 13 ft^3/s (0.37 m^3/s) Mar. 12, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 534 ft^3/s (15.1 m^3/s) July 10, gage height, 6.72 ft (2.048 m); minimum daily, 19 ft^3/s (0.54 m^3/s) Nov. 29 to Dec. 1, Jan. 5,9,10, Sept. 27-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	25	19	23	27	30	36	37	35	246	274	48
2	21	25	20	21	27	32	37	36	33	277	283	64
3	20	24	20	20	27	37	37	36	34	299	273	48
4	20	24	21	20	27	39	38	35	34	309	271	41
5	21	24	22	19	28	40	37	34	33	315	260	34
6	21	24	28	20	28	37	36	33	31	334	253	32
7	22	24	25	22	28	36	35	32	30	339	246	32
8	23	24	24	21	28	35	35	31	29	339	243	32
9	23	24	25	19	30	33	34	31	27	328	246	30
10	23	23	22	19	33	32	34	30	27	418	255	30
11	23	23	32	21	37	30	33	30	27	307	266	27
12	23	23	28	20	39	24	34	29	28	298	277	40
13	23	23	29	21	29	35	32	28	27	302	287	30
14	23	24	27	22	29	45	35	27	24	285	306	23
15	23	25	25	22	29	58	40	26	23	270	293	22
16	23	23	25	23	29	60	44	27	22	270	193	23
17	24	24	21	23	28	48	40	26	22	275	149	23
18	25	23	21	23	28	51	38	25	21	285	135	22
19	25	23	24	24	27	52	39	25	22	295	123	22
20	25	23	22	24	27	48	59	26	25	296	116	22
21	25	23	20	24	27	42	58	38	29	323	113	22
22	25	23	21	25	27	41	48	41	30	322	110	21
23	25	24	22	25	29	40	45	35	32	316	108	21
24	25	24	24	25	31	39	43	32	35	308	106	20
25	25	24	26	25	34	39	41	31	45	306	100	21
26	24	24	32	25	31	39	39	30	60	294	70	20
27	24	23	42	26	30	38	39	29	75	279	62	19
28	25	20	35	26	30	42	38	29	82	270	55	19
29	25	19	34	26	---	43	38	31	128	261	53	19
30	25	19	31	27	---	38	37	32	211	251	56	20
31	25	---	27	27	---	36	---	39	---	262	49	---
TOTAL	725	698	794	708	824	1239	1179	971	1281	9279	5631	847
MEAN	23.4	23.3	25.6	22.8	29.4	40.0	39.3	31.3	42.7	299	182	28.2
MAX	25	25	42	27	39	60	59	41	211	418	306	64
MIN	20	19	19	19	27	24	32	25	21	246	49	19
AC-FT	1440	1380	1570	1400	1630	2460	2340	1930	2540	18400	11170	1680

CAL YR 1976 TOTAL 24104 MEAN 65.9 MAX 331 MIN 17 AC-FT 47810
WTR YR 1977 TOTAL 24176 MEAN 66.2 MAX 418 MIN 19 AC-FT 47950

06834000 FRENCHMAN CREEK AT PALISADE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	TEMPERATURE (DEG C) (00010)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	TEMPERATURE (DEG C) (00010)
OCT , 1976					APR , 1977				
05...	1410	21	439	14.0	06...	1440	36	425	17.0
NOV					MAY				
01...	1215	25	425	10.0	16...	1410	28	427	25.0
15...	1000	25	430	.0	JUN				
DEC					13...	1430	27	415	29.0
13...	1220	34	422	.0	JUL				
JAN , 1977					11...	1315	299	372	26.0
11...	1355	21	453	.0	25...	1330	299	377	25.0
FEB					AUG				
08...	1230	28	437	1.0	08...	1730	241	390	24.0
MAR					SEP				
21...	1335	42	428	6.0	19...	1520	22	458	20.5

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SUSPENDED SEDIMENT (MG/L) (80154)	SUSPENDED SEDIMENT DISCHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)
MAR												
24...	1130	42	10.0	92	10	--	--	--	--	--	--	--
JUL												
11...	1200	299	26.0	960	775	19	19	32	71	88	95	100
25...	1330	299	25.0	752	607	--	--	--	69	88	97	100
AUG												
08...	1700	241	24.0	668	435	--	--	--	64	90	99	100
22...	1500	108	24.5	300	87	--	--	--	80	95	100	--

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	NUMBER OF SAMPLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
MAR												
24...	1130	42	2	--	0	8	49	81	90	96	98	100
JUL												
11...	1200	299	2	0	0	10	58	88	90	96	99	100
25...	1300	299	2	--	0	13	57	85	94	98	100	--
AUG												
08...	1700	241	2	--	0	18	58	83	92	97	99	100
22...	1500	108	2	--	0	12	44	77	89	97	100	--

06835000 STINKING WATER CREEK NEAR PALISADE, NE

LOCATION.--Lat 40°22'10", long 101°06'50", at southwest corner of NE1/4 sec.30, T.5 N., R.33 W., Hayes County, Hydrologic Unit 10250006, on right bank 25 ft (8 m) downstream from county bridge, 1.2 mi (1.9 km) upstream from mouth, and 1.8 mi (2.9 km) northeast of Palisade.

DRAINAGE AREA.--1,500 mi² (3,890 km²), approximately, of which about 380 mi² (980 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1949 to current year.

REVISED RECORDS.--WSP 1730: 1952(M). WSP 1919: 1951(P), 1955. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,740.99 ft (835.454 m) above mean sea level.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--28 years, 42.5 ft³/s (1.204 m³/s), 30,790 acre-ft/yr (38.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,030 ft³/s (85.8 m³/s) June 17, 1956, gage height, 11.30 ft (3.444 m), from rating curve extended above 1,200 ft³/s (34.0 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 6.0 ft³/s (0.17 m³/s) Aug. 4, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 306 ft³/s (8.67 m³/s) July 8, gage height, 6.11 ft (1.862 m); no other peak above base of 150 ft³/s (4.25 m³/s); minimum daily, 17 ft³/s (0.48 m³/s) July 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	27	30	24	29	38	48	46	59	21	19	23
2	19	27	30	23	30	40	48	44	46	21	19	26
3	18	27	30	22	30	37	52	44	41	20	19	25
4	18	27	32	20	31	38	53	48	36	19	18	25
5	18	27	32	20	31	38	54	48	34	18	18	23
6	19	27	30	22	32	39	55	43	32	18	19	22
7	23	27	28	24	32	37	52	40	31	18	20	22
8	23	27	31	21	36	46	47	38	30	196	20	21
9	24	28	31	20	37	56	44	37	29	43	19	21
10	23	28	32	22	37	57	41	37	28	85	19	20
11	23	28	32	24	40	50	41	37	27	42	19	20
12	22	28	30	26	40	42	39	35	28	29	19	23
13	22	24	31	28	44	56	40	34	36	27	18	22
14	22	23	31	28	43	75	46	34	38	25	19	21
15	22	25	32	26	42	85	63	33	34	24	19	21
16	22	27	31	26	39	85	72	33	30	23	19	21
17	22	28	31	26	38	78	76	31	29	21	19	21
18	23	30	33	26	39	80	65	31	27	20	19	21
19	23	30	32	26	38	84	61	30	27	18	19	21
20	24	30	25	27	38	77	79	31	29	18	20	21
21	23	30	23	31	38	76	123	39	30	17	20	21
22	23	30	25	31	38	75	101	57	29	19	21	20
23	25	27	27	32	39	75	75	66	28	22	25	21
24	29	30	30	34	46	74	62	54	28	21	24	20
25	26	30	30	36	44	73	60	45	26	21	24	20
26	26	30	32	31	41	66	55	40	24	20	23	20
27	26	26	34	31	39	60	52	37	23	20	22	21
28	26	24	32	29	39	59	49	36	23	20	21	21
29	27	30	30	28	---	64	47	35	22	20	22	22
30	25	32	27	26	---	67	46	36	22	19	22	22
31	27	---	24	28	---	53	---	56	---	18	23	---
TOTAL	712	834	928	818	1050	1880	1746	1255	926	923	627	648
MEAN	23.0	27.8	29.9	26.4	37.5	60.6	58.2	40.5	30.9	29.8	20.2	21.6
MAX	29	32	34	36	46	85	123	66	59	196	25	26
MIN	18	23	23	20	29	37	39	30	22	17	18	20
AC-FT	1410	1650	1840	1620	2080	3730	3460	2490	1840	1830	1240	1290

CAL YR 1976 TOTAL 11331 MEAN 31.0 MAX 85 MIN 10 AC-FT 22480
WTR YR 1977 TOTAL 12347 MEAN 33.8 MAX 196 MIN 17 AC-FT 24490

06835500 FRENCHMAN CREEK AT CULBERTSON, NE

LOCATION.--Lat 40°14'05", long 100°52'40", in SW1/4SE1/4 sec.12, T.3 N., R.32 W., Hitchcock County, Hydrologic Unit 10250005, on right bank 19 ft (6 m) upstream from bridge on U.S. Highways 6 and 34, 2 mi (3 km) west of Culbertson, and 4.5 mi (7.2 km) upstream from mouth.

DRAINAGE AREA.--2,770 mi² (7,170 km²), approximately, of which about 1,470 mi² (3,810 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1913 to September 1915 (gage heights and discharge measurements only), October 1930 to current year. Published as Frenchman River at Culbertson October 1965 to September 1972. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1931, 1933, 1934(M), 1938(M). WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,583.44 ft (787.433 m) above mean sea level. See WSP 1919 for history of changes prior to Nov. 2, 1950.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station and, since Oct. 23, 1950, by storage in Enders Reservoir (station 06832000). Principal diversion is by Culbertson Canal, 20,800 acres (84.2 km²).

AVERAGE DISCHARGE.--47 years, 109 ft³/s (3.087 m³/s), 78,970 acre-ft/yr (97.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft³/s (425 m³/s), estimated, May 31, 1935, gage height, 14.8 ft (4.51 m), from floodmarks, present site and datum; minimum daily, 4.0 ft³/s (0.11 m³/s) Aug. 25, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,410 ft³/s (68.3 m³/s) Aug. 25, gage height, 8.97 ft (2.734 m); minimum daily, 4.5 ft³/s (0.13 m³/s) July 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	58	68	75	59	80	110	39	61	26	7.6	67
2	35	58	66	75	65	82	110	43	61	19	19	103
3	43	57	70	73	70	78	109	39	52	12	20	104
4	33	57	72	70	73	69	112	37	47	9.3	14	81
5	36	56	75	60	75	77	109	39	42	9.4	8.5	72
6	40	57	74	50	77	92	109	39	30	9.9	7.6	67
7	46	58	70	45	78	90	108	37	36	11	14	64
8	46	57	76	40	80	87	106	33	32	17	11	63
9	47	58	76	40	82	94	108	32	31	122	10	60
10	49	59	80	40	86	99	101	31	25	103	9.5	58
11	49	58	68	40	89	105	97	31	23	150	9.0	58
12	53	56	76	42	96	38	89	30	27	45	8.4	54
13	49	55	77	44	100	44	67	30	22	24	6.4	78
14	49	53	76	44	101	67	55	30	21	30	7.9	61
15	47	59	76	44	94	92	53	29	24	20	17	58
16	46	62	74	48	91	119	91	29	22	17	17	57
17	47	62	82	50	89	136	88	28	20	12	15	56
18	48	62	80	55	88	145	81	29	20	11	12	57
19	48	64	82	60	86	153	69	26	22	11	11	56
20	49	62	71	60	84	169	105	50	21	9.0	6.8	53
21	51	62	56	60	88	160	105	74	24	7.6	6.3	54
22	51	61	51	65	86	139	118	71	31	7.0	5.9	53
23	52	61	70	65	87	125	95	72	27	9.6	7.3	51
24	54	64	71	70	88	126	77	67	27	7.3	21	50
25	56	65	73	66	89	128	61	56	25	6.5	736	50
26	54	67	71	69	88	123	50	49	25	7.4	90	49
27	55	68	79	69	83	116	46	44	20	7.1	134	48
28	56	69	84	64	81	119	43	42	12	6.9	106	47
29	56	56	76	60	---	123	41	42	12	4.6	71	50
30	57	60	76	61	---	128	41	42	15	4.5	67	55
31	58	---	75	59	---	116	---	43	---	5.0	68	---
TOTAL	1495	1801	2265	1763	2345	3295	2546	1283	865	764.3	1552.2	1834
MEAN	48.2	60.0	73.1	56.9	83.8	106	84.9	41.4	28.8	24.7	50.1	61.1
MAX	58	69	84	75	101	169	118	74	61	150	736	104
MIN	33	53	51	40	59	38	41	26	12	4.5	5.9	47
AC-FT	2970	3570	4490	3500	4650	6540	5050	2540	1720	1520	3080	3640

CAL YR 1976 TOTAL 19232.6 MEAN 52.5 MAX 304 MIN 4.0 AC-FT 38150
WTR YR 1977 TOTAL 21792.5 MEAN 59.7 MAX 736 MIN 4.5 AC-FT 43230

06835500 FRENCHMAN CREEK AT CULBERTSON, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	DIS-SOLVED OXYGEN (MG/L) (00300)
OCT							
07...	1315	85	565	7.8	10.0	50	9.9
NOV							
12...	1230	59	650	8.0	1.0	40	12.1
DEC							
16...	1315	60	595	7.8	2.0	45	12.1
JAN							
21...	1215	38	500	7.8	.0	25	11.9
FEB							
23...	0930	92	460	7.6	5.0	40	12.7
MAR							
23...	0900	123	480	7.6	6.0	170	11.9
APR							
22...	1000	120	500	7.7	16.0	300	9.3
MAY							
16...	1130	25	625	8.0	19.0	10	9.8
JUN							
20...	1230	12	600	7.9	27.0	6	8.7
JUL							
20...	0900	80	580	7.8	21.0	20	9.1
AUG							
22...	1105	6.0	650	7.8	24.0	5	8.9
SEP							
20...	1100	50	510	7.9	19.0	50	9.4

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)
JAN											
21...	1215	6	0	56	16	20	.6	14	258	0	212
JUL											
20...	0900	7	0	68	20	30	.9	17	310	0	250

DATE	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOL-VED PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)
JAN										
21...	39	5.0	.9	53	338	34.7	.46	2.6	.04	90
JUL										
20...	53	7.6	1.2	45	412	89.0	.56	3.1	.05	130

06836000 BLACKWOOD CREEK NEAR CULBERTSON, NE

LOCATION.--Lat 40°14'10", long 100°48'39", in SE1/4SW1/4 sec.10, T.3 N., R.31 W., Hitchcock County, Hydrologic Unit 10250004, on right bank 500 ft (152 m) upstream from bridge on U.S. Highways 6 and 34, 0.2 mi (0.3 km) north of Burlington Northern Inc. bridge, 1 mi (2 km) east of Culbertson, and 1.8 mi (2.9 km) upstream from mouth.

DRAINAGE AREA.--320 mi^2 (830 km^2), approximately, of which about 270 mi^2 (700 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--May 1946 to current year.

REVISED RECORDS.-- WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,555.25 ft (778.840 m) above mean sea level. Prior to Oct. 1, 1967, at site 0.2 mi (0.3 km) downstream at present datum and Oct. 1, 1967, to Aug. 28, 1968, at site 0.8 mi (1.3 km) downstream at datum 8.96 ft (2.731 m) lower.

REMARKS.--Records fair. Natural flow affected by irrigation development above station, return flow from irrigated areas, and waste from Culbertson Canal.

AVERAGE DISCHARGE.--31 years, 6.62 ft^3/s (0.187 m^3/s), 4,800 acre-ft/yr (5.92 hm^3/yr); median of yearly mean discharges, 5.8 ft^3/s (0.164 m^3/s), 4,200 acre-ft/yr (5.18 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,650 ft^3/s (46.7 m^3/s) June 17, 1955, gage height, 14.64 ft (4.462 m), site then in use; no flow Jan. 4-6, 1950.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 31, 1935, reached a stage of 24.0 ft (7.32 m), at site 0.2 mi (0.3 km) downstream, at present datum, from floodmarks, discharge, about 5,300 ft^3/s (150 m^3/s), from information by Nebraska Department of Roads.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 150 ft^3/s (4.25 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 20	1915	*723	20.5	8.46	2.579
Aug. 25	0615	436	12.3	7.12	2.170

Minimum daily discharge, 0.89 ft^3/s (0.025 m^3/s) Mar. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	1.8	1.8	1.7	1.7	2.1	1.6	15	6.6	4.7	6.9	2.8
2	1.0	1.8	1.8	2.0	1.8	2.0	2.4	17	4.9	5.5	6.1	2.9
3	1.2	1.8	2.0	1.9	1.7	2.0	1.7	25	6.3	6.1	6.0	2.9
4	1.5	1.7	2.0	2.3	1.7	2.1	1.7	21	4.5	5.7	6.3	2.9
5	1.6	1.6	2.0	1.9	1.7	2.0	1.4	18	4.0	6.5	5.5	2.9
6	2.0	1.6	1.9	2.3	1.8	1.7	1.4	17	3.8	5.9	3.9	2.9
7	2.8	1.6	2.1	2.5	1.9	1.7	1.4	17	3.2	6.5	5.4	2.8
8	2.2	1.6	2.2	2.0	2.0	1.8	1.4	23	2.9	6.5	4.0	2.8
9	1.7	1.6	2.1	2.3	2.0	1.8	1.4	23	2.7	9.0	3.1	2.8
10	1.6	1.6	2.4	2.4	2.0	1.6	1.0	10	2.5	12	3.1	2.8
11	1.4	1.7	2.1	2.2	1.9	1.9	1.1	8.5	2.2	8.4	4.6	2.6
12	1.1	1.2	2.2	2.1	1.8	.89	1.1	7.2	2.7	6.7	3.8	2.6
13	1.0	1.2	2.1	2.2	1.8	1.5	1.1	7.4	2.7	3.6	3.7	2.5
14	1.0	1.4	2.3	2.2	1.8	2.6	1.1	6.0	3.1	2.8	5.5	2.5
15	1.6	1.6	1.9	2.2	1.8	1.6	1.6	3.5	5.5	3.6	6.4	2.3
16	1.5	1.5	1.8	2.2	1.8	1.4	2.4	4.9	5.7	3.9	6.2	2.3
17	1.8	1.8	1.8	2.4	1.8	1.5	6.3	4.7	5.3	6.0	6.8	2.2
18	1.6	1.8	1.8	2.1	1.8	1.5	19	3.8	4.0	7.1	8.8	2.2
19	1.6	1.8	1.8	2.3	1.8	1.6	17	3.7	3.2	6.1	5.1	2.3
20	1.7	2.0	1.6	2.3	1.8	1.5	26	149	3.1	5.8	5.2	2.3
21	1.8	1.8	1.8	2.2	1.8	1.5	32	137	2.2	5.3	4.0	2.6
22	1.8	1.5	1.8	2.2	1.9	1.4	22	17	2.6	6.5	4.1	2.6
23	1.8	2.2	1.6	2.2	1.8	1.4	13	7.9	5.1	6.1	5.3	2.6
24	1.8	2.2	1.7	2.0	1.8	1.4	13	10	3.4	5.0	7.5	2.6
25	1.6	2.3	1.7	1.8	1.7	1.7	15	12	2.9	4.9	228	2.6
26	1.8	2.2	1.8	2.0	1.7	1.5	17	13	2.3	5.2	44	2.5
27	1.8	1.2	1.9	2.0	1.7	1.3	18	12	1.8	4.7	10	2.5
28	1.8	1.7	2.1	2.2	2.1	1.8	15	6.9	1.7	4.0	3.9	2.3
29	1.8	1.5	2.3	1.7	---	1.8	11	5.2	1.8	4.9	3.2	3.2
30	1.8	1.7	1.5	1.7	---	1.3	12	8.8	2.4	5.6	2.9	15
31	1.8	---	1.7	1.7	---	1.4	---	10	---	7.2	2.9	---
TOTAL	50.5	51.0	59.6	65.2	50.9	51.29	260.1	624.5	105.1	181.8	422.2	90.8
MEAN	1.63	1.70	1.92	2.10	1.82	1.65	8.67	20.1	3.50	5.86	13.6	3.03
MAX	2.8	2.3	2.4	2.5	2.1	2.6	32	149	6.6	12	228	15
MIN	1.0	1.2	1.5	1.7	1.7	.89	1.0	3.5	1.7	2.8	2.9	2.2
AC-FT	100	101	118	129	101	102	516	1240	208	361	837	180

CAL YR 1976 TOTAL 1920.21 MEAN 5.25 MAX 323 MIN .68 AC-FT 3810
WTR YR 1977 TOTAL 2012.99 MEAN 5.52 MAX 228 MIN .89 AC-FT 3990

06836500 DRIFTWOOD CREEK NEAR MCCOOK, NE

LOCATION.--Lat 40°08'50", long 100°39'55", in SW1/4SW1/4 sec.12, T.2 N., R.30 W., Red Willow County, Hydrologic Unit 10250004, on right bank 50 ft (15 m) downstream from privately owned bridge, 600 ft (183 m) downstream from siphon and wasteway on Meeker-Driftwood Canal, 4.5 mi (7.2 km) southwest of McCook, and 4.5 mi (7.2 km) upstream from mouth.

DRAINAGE AREA.--360 mi² (930 km²), approximately, of which about 350 mi² (910 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--March 1946 to current year.

REVISED RECORDS.--WSP 1210: 1950.

GAGE.--Water-stage recorder. Datum of gage is 2,493.78 ft (760.104 m) above mean sea level. Prior to Oct. 12, 1962, at site 0.2 mi (0.3 km) downstream in old channel at present datum, and Oct. 12, 1962, to Apr. 11, 1963, at site 0.5 mi (0.8 km) downstream at datum 3.75 ft (1.143 m) lower.

REMARKS.--Records fair. Natural flow affected by waste from Meeker-Driftwood Canal and by irrigation development above station.

AVERAGE DISCHARGE.--31 years, 10.8 ft³/s (0.306 m³/s), 7,820 acre-ft/yr (9.64 hm³/yr); median of yearly mean discharges, 8.5 ft³/s (0.241 m³/s), 6,200 acre-ft/yr (7.64 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,740 ft³/s (134 m³/s) Aug. 7, 1950, gage height, 25.43 ft (7.751 m), at site then in use, from floodmark, from rating curve extended above 3,000 ft³/s (85.0 m³/s); no flow at times in 1946-50, 1952-56.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 21	1315	596	16.9	15.35	4.679	Sept. 2	2145	*607	17.2	15.42	4.700
Aug. 25	0745	427	12.1	14.14	4.310						

Minimum daily discharge, 0.77 ft³/s (0.022 m³/s) July 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	6.6	6.0	5.7	6.4	6.0	7.6	7.9	8.7	6.6	6.8	12
2	6.8	6.4	6.0	5.7	6.3	6.0	10	8.2	8.1	5.2	8.6	273
3	6.5	6.5	6.0	5.7	6.3	6.6	9.1	8.1	9.0	5.4	7.6	370
4	6.5	6.5	6.0	5.7	6.3	6.1	9.2	7.0	7.2	5.2	22	73
5	6.3	6.5	6.0	5.8	6.5	6.0	8.4	7.0	6.1	5.8	25	23
6	6.4	6.5	6.0	6.0	6.5	6.0	8.2	7.0	5.8	6.7	24	16
7	7.2	6.5	6.0	6.0	6.3	6.1	8.1	7.0	5.4	6.8	13	13
8	7.5	6.5	6.0	6.0	6.4	7.9	7.9	7.0	5.2	11	8.0	11
9	7.1	6.5	6.0	6.0	6.3	6.8	8.9	6.8	9.2	9.4	9.3	8.9
10	7.0	6.5	6.0	6.0	6.3	6.3	8.6	6.5	12	9.9	9.7	8.5
11	6.8	6.5	6.0	5.8	6.3	6.0	8.2	6.4	4.8	8.9	11	8.2
12	6.8	6.5	6.0	5.7	6.3	7.0	8.5	6.4	5.8	8.2	10	7.9
13	6.8	6.3	6.0	6.0	6.6	7.8	8.5	6.4	8.4	7.1	9.3	7.8
14	6.8	6.3	6.0	6.0	6.9	8.9	8.5	7.7	11	7.2	9.6	8.2
15	6.9	6.3	6.0	5.9	6.4	9.0	11	7.1	28	8.1	11	7.9
16	7.1	6.3	6.0	5.6	7.3	8.3	120	6.7	15	7.0	11	7.0
17	7.2	6.3	6.3	5.9	6.8	7.9	20	6.4	9.6	7.4	9.5	6.8
18	7.3	6.3	6.0	5.1	6.3	8.0	10	6.7	8.3	7.1	7.9	6.7
19	7.1	6.0	5.9	5.4	6.0	8.6	10	7.3	9.0	4.3	10	6.8
20	7.2	6.0	5.6	5.5	6.0	8.9	19	18	8.4	1.0	9.0	5.9
21	6.9	6.0	5.8	5.5	6.0	8.3	13	423	7.5	4.9	11	5.7
22	7.0	6.0	6.2	5.5	6.1	7.9	10	119	6.7	4.1	12	5.9
23	6.9	6.3	5.9	5.7	6.7	7.9	9.5	30	7.5	.77	13	5.6
24	7.1	6.3	6.0	5.7	6.9	7.8	9.2	15	7.2	4.9	88	5.8
25	7.4	6.3	6.3	5.7	6.3	7.9	8.6	10	6.4	7.0	196	5.5
26	7.1	6.4	6.3	5.7	6.2	7.6	8.5	8.9	6.1	8.1	38	5.3
27	7.4	6.0	6.3	5.7	6.0	7.5	7.9	8.0	6.1	7.0	21	5.3
28	7.3	6.0	5.9	5.9	6.0	9.2	7.6	7.3	7.6	7.5	15	5.2
29	7.2	6.0	5.7	6.0	---	11	7.3	7.3	8.8	7.4	13	4.9
30	7.4	6.0	5.5	6.1	---	7.9	7.8	7.4	9.2	6.5	13	4.4
31	7.3	---	5.7	6.0	---	7.3	---	8.3	---	8.4	13	---
TOTAL	216.8	189.1	185.4	179.0	178.7	234.5	399.1	795.8	257.7	204.87	665.3	936.0
MEAN	6.99	6.30	5.98	5.77	6.38	7.56	13.3	25.7	8.59	6.61	21.5	31.2
MAX	7.5	6.6	6.3	6.1	7.3	11	120	423	28	11	196	370
MIN	6.3	6.0	5.5	5.1	6.0	6.0	7.3	6.4	4.8	.77	6.8	4.4
AC-FT	430	375	368	355	354	465	792	1580	511	406	1320	1860

CAL YR 1976 TOTAL 3276.30 MEAN 8.95 MAX 197 MIN 3.0 AC-FT 6500
WTR YR 1977 TOTAL 4442.27 MEAN 12.2 MAX 423 MIN .77 AC-FT 8810

06837000 REPUBLICAN RIVER AT MCCOOK, NE

LOCATION.--Lat 40°11'15", long 100°37'05", in SW1/4NE1/4 sec.32, T.3 N., R.29 W., Red Willow County, Hydrologic Unit 10250004, on left bank 25 ft (8 m) downstream from bridge on U.S. Highway 83 at south edge of McCook, 2.5 mi (4.0 km) downstream from Driftwood Creek, and 10.5 mi (16.9 km) upstream from Red Willow Creek.

DRAINAGE AREA.--12,310 mi² (31,900 km²), approximately, of which about 6,260 mi² (16,200 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to June 1932, October 1954 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,456.37 ft (748.702 m) above mean sea level. October 1930 to June 1932 nonrecording gage on former highway bridge 325 ft (99.1 m) upstream at different datum and October 1954 to Mar. 13, 1959, on highway bridge 25 ft (7.6 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station and by storage in Bonny Reservoir, Enders Reservoir (station 06832000), and Swanson Lake (station 06829000).

AVERAGE DISCHARGE.--24 years, 199 ft³/s (5.636 m³/s), 144,200 acre-ft/yr (0.178 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,890 ft³/s (167 m³/s) Mar. 21, 1960, gage height, 9.14 ft (2.786 m); no flow for several days in July and August 1931.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1826 occurred May 31, 1935, discharge, about 245,000 ft³/s (6,940 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,370 ft³/s (67.1 m³/s) Aug. 25, gage height, 7.17 ft (2.185 m); minimum daily, 48 ft³/s (1.36 m³/s) Oct. 2,4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	80	65	60	94	100	167	107	110	192	101	111
2	48	80	68	55	98	105	195	123	115	207	106	269
3	49	83	76	55	100	90	179	134	127	213	102	699
4	48	84	74	55	105	80	177	130	110	209	118	307
5	49	85	70	50	115	82	164	114	103	214	146	154
6	52	84	66	50	115	100	164	102	103	223	280	131
7	64	84	75	56	120	110	165	99	103	230	136	120
8	61	82	80	54	130	105	165	107	101	234	97	116
9	60	78	80	50	140	110	157	106	101	268	81	106
10	61	78	76	50	150	122	147	93	101	336	77	99
11	61	77	80	52	155	105	144	77	99	326	76	97
12	60	75	80	52	155	80	149	73	98	268	76	99
13	64	76	85	55	160	60	137	73	95	212	72	101
14	63	76	85	55	159	115	123	71	75	167	67	103
15	64	81	90	53	151	122	132	68	88	124	77	95
16	67	85	105	50	148	160	364	65	92	108	85	95
17	68	86	115	52	141	165	186	63	78	94	78	92
18	69	89	120	55	135	182	168	59	71	88	73	92
19	67	89	110	60	128	212	164	64	76	85	87	92
20	66	90	90	70	124	227	241	134	77	79	90	90
21	65	90	75	80	122	215	256	1610	75	79	74	88
22	68	86	75	90	120	203	215	704	84	84	67	86
23	71	92	80	88	129	180	191	235	81	88	67	84
24	74	95	82	85	121	173	159	169	76	83	189	86
25	79	97	85	90	113	173	144	145	69	103	1590	86
26	75	100	87	96	113	171	131	150	68	99	539	86
27	74	60	89	100	107	160	125	126	64	94	211	85
28	75	54	85	97	103	185	116	119	60	92	235	79
29	76	58	80	90	---	193	114	107	87	95	155	80
30	78	63	78	82	---	180	107	106	118	85	127	99
31	76	---	75	88	---	177	---	104	---	85	116	---
TOTAL	2001	2437	2581	2075	3551	4442	5046	5437	2705	4864	5395	3927
MEAN	64.5	81.2	83.3	66.9	127	143	168	175	90.2	157	174	131
MAX	79	100	120	100	160	227	364	1610	127	336	1590	699
MIN	48	54	65	50	94	60	107	59	60	79	67	79
AC-FT	3970	4830	5120	4120	7040	8810	10010	10780	5370	9650	10700	7790

CAL YR 1976 TOTAL 44267 MEAN 121 MAX 505 MIN 39 AC-FT 87800
WTR YR 1977 TOTAL 44461 MEAN 122 MAX 1610 MIN 48 AC-FT 88190

06837000 REPUBLICAN RIVER AT MC COOK, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1967 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: December 1966 to current year.

INSTRUMENTATION.--Temperature recorder since Dec. 13, 1966.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 38.5°C June 24, 1971; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 36.0°C July 17; minimum, 0.0°C on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	24.0	11.0	11.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0
2	21.0	11.5	9.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.5
3	24.0	14.0	11.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0
4	16.0	9.0	9.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
5	18.5	8.0	10.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
6	10.5	7.0	7.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.5
7	13.0	6.0	8.0	0.0	0.5	0.0	0.0	0.0	0.5	0.0	13.0	1.5
8	18.0	5.5	10.5	1.0	0.5	0.0	0.0	0.0	0.5	0.0	15.0	4.0
9	20.0	8.0	10.5	3.0	0.0	0.0	0.0	0.0	0.5	0.0	14.5	5.0
10	21.0	9.5	9.0	1.0	0.0	0.0	0.5	0.0	0.5	0.0	15.0	6.5
11	22.0	10.5	6.0	3.0	0.0	0.0	0.5	0.0	0.5	0.0	10.0	1.5
12	20.5	11.0	3.0	0.0	0.5	0.0	0.5	0.0	1.0	0.0	3.5	1.0
13	20.0	10.5	0.5	0.0	0.5	0.0	0.0	0.0	3.0	0.0	10.5	1.5
14	20.5	10.0	2.0	0.0	0.5	0.0	0.0	0.0	5.5	0.0	12.0	4.0
15	15.5	8.0	5.5	0.0	0.5	0.0	0.0	0.0	3.5	0.5	12.0	5.5
16	15.5	4.5	5.5	0.0	1.0	0.0	0.0	0.0	8.0	0.5	9.5	5.0
17	9.0	4.0	8.5	0.0	1.5	0.0	0.0	0.0	9.0	1.5	10.5	5.5
18	9.5	4.0	10.0	2.0	2.0	0.0	0.0	0.0	9.0	1.5	10.0	5.5
19	10.0	2.0	8.0	1.5	1.5	0.5	0.0	0.0	8.0	1.5	9.0	4.5
20	11.0	1.0	5.5	3.0	0.5	0.0	0.5	0.0	8.5	1.5	8.5	5.5
21	11.5	1.5	4.5	0.0	1.0	0.0	1.0	0.0	9.5	3.0	8.5	4.5
22	11.0	2.0	1.5	0.0	1.0	0.5	1.0	0.5	10.0	5.0	10.0	5.0
23	13.5	4.5	4.5	0.0	1.0	0.0	1.0	0.0	5.5	3.0	12.0	7.0
24	7.0	3.0	6.5	0.0	0.5	0.5	1.0	0.0	9.0	1.0	14.0	8.0
25	7.0	0.5	6.5	1.0	0.5	0.0	0.5	0.0	8.0	2.0	15.5	10.5
26	5.0	2.0	4.5	0.0	0.5	0.5	0.5	0.0	9.0	0.0	14.0	11.0
27	6.0	3.0	3.0	0.0	0.5	0.0	0.0	0.0	7.0	1.0	14.5	9.0
28	9.0	1.0	1.5	0.0	0.5	0.0	0.0	0.0	8.5	0.0	13.5	10.0
29	9.0	3.5	0.0	0.0	0.5	0.0	0.0	0.0	---	---	11.0	7.0
30	11.0	3.5	0.0	0.0	0.5	0.0	0.0	0.0	---	---	10.0	5.0
31	12.0	3.0	---	---	0.0	0.0	0.5	0.0	---	---	13.0	6.5
MONTH	24.0	0.5	11.0	0.0	2.0	0.0	1.0	0.0	10.0	0.0	15.5	0.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.0	8.0	14.0	9.5	24.5	17.0	26.0	18.0	28.0	19.5	24.5	18.5
2	11.0	7.0	10.5	8.0	29.0	18.5	26.5	19.0	30.0	18.5	24.5	19.5
3	10.0	6.0	15.5	9.5	30.5	19.0	30.0	23.0	30.0	21.5	24.5	18.0
4	10.0	6.5	14.5	9.5	34.0	21.0	33.0	24.0	31.5	23.0	24.5	20.0
5	13.0	8.0	15.0	10.0	35.5	21.0	33.5	24.0	25.0	21.0	25.0	19.5
6	13.0	8.0	13.0	9.5	29.5	21.5	33.5	24.0	25.0	19.5	25.0	19.5
7	14.5	10.0	15.0	10.5	30.0	17.0	30.5	22.0	30.5	22.0	25.5	19.0
8	16.5	12.0	17.0	12.0	34.0	19.0	31.0	22.0	31.5	23.5	28.5	18.5
9	17.0	11.0	22.0	16.0	33.5	20.0	30.0	22.0	34.5	21.5	25.0	15.0
10	16.5	13.0	20.0	16.5	---	20.0	29.0	22.5	29.0	18.0	24.0	13.5
11	18.5	13.0	20.0	16.5	33.0	20.5	27.0	23.0	28.5	15.5	25.5	15.5
12	18.0	13.0	21.0	16.0	31.5	19.5	31.5	23.0	31.5	18.5	24.5	19.0
13	17.0	12.0	21.5	15.5	30.0	20.0	31.0	24.0	31.5	20.0	26.0	17.0
14	17.0	12.0	22.0	16.0	32.0	19.0	30.0	23.0	26.0	19.0	24.5	14.0
15	17.0	12.5	23.0	16.5	34.0	20.5	33.5	22.0	33.5	21.0	23.5	13.0
16	17.0	12.5	27.0	16.0	26.5	19.0	35.0	23.5	29.5	20.0	25.0	16.0
17	16.0	13.0	28.5	13.5	31.5	21.0	36.0	23.5	28.0	18.0	25.0	15.5
18	14.0	10.5	25.5	16.0	30.5	20.0	35.0	23.5	27.0	16.5	25.0	16.0
19	8.0	4.5	25.0	15.5	27.0	19.0	34.5	23.0	30.5	20.0	27.0	18.0
20	8.0	4.0	25.5	14.5	28.5	19.5	35.0	24.5	34.0	19.0	25.0	16.0
21	9.0	3.5	14.5	13.0	28.0	20.5	25.0	21.5	33.0	20.5	25.0	16.0
22	10.5	4.5	20.0	14.0	29.5	19.0	31.5	21.5	32.0	19.5	23.5	15.5
23	12.0	6.0	19.5	15.5	28.0	20.0	35.0	23.0	34.0	19.5	23.0	15.5
24	11.5	5.5	19.5	15.5	28.0	21.0	35.5	24.0	26.5	19.5	24.0	16.0
25	12.5	7.0	20.0	15.0	25.5	18.0	25.5	23.0	25.0	20.0	23.0	15.0
26	14.0	7.0	18.0	15.5	28.0	19.5	27.0	21.0	28.0	22.0	23.5	16.0
27	14.5	9.0	21.0	16.0	29.0	22.0	32.0	20.5	28.0	21.5	23.0	15.5
28	14.0	9.0	20.0	16.0	32.0	21.5	30.0	22.0	27.0	20.0	22.0	14.0
29	13.0	9.5	21.0	16.5	29.0	21.0	32.0	21.0	25.0	18.0	23.0	15.0
30	13.5	9.0	22.0	16.5	30.5	19.0	31.5	22.0	24.0	17.5	23.0	15.0
31	---	---	22.0	16.0	---	---	29.5	20.5	26.0	19.0	---	---
MONTH	18.5	3.5	28.5	8.0	35.5	17.0	36.0	18.0	34.5	15.5	28.5	13.0

06837300 RED WILLOW CREEK ABOVE HUGH BUTLER LAKE, NE

LOCATION.--Lat 40°24'05", long 100°46'45", in NE1/4SE1/4 sec.13, T.5 N., R.31 W., Hayes County, Hydrologic Unit 10250007, on right bank 1,000 ft (305 m) above county road bridge, 7.2 mi (11.6 km) upstream from Red Willow Dam, and 12 mi (19 km) northeast of Culbertson.

DRAINAGE AREA.--600 mi² (1,550 km²), approximately, of which about 200 mi² (520 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Artificial control since March 1961. Datum of gage is 2,594.80 ft (790.895 m) above mean sea level. Prior to Mar. 23, 1961, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by pump irrigation development above station.

AVERAGE DISCHARGE.--17 years, 29.1 ft³/s (0.824 m³/s), 21,080 acre-ft/yr (26.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,020 ft³/s (114 m³/s) June 16, 1972, gage height, 13.27 ft (4.045 m), from rating curve extended above 1,000 ft³/s (28.3 m³/s) on basis of slope-conveyance study; minimum daily, 4.0 ft³/s (0.11 m³/s) July 4, 5, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 181 ft³/s (5.13 m³/s) Aug. 25 at 0845, gage height, 2.59 ft (0.789 m); no other peak above base of 150 ft³/s (4.25 m³/s); minimum daily, 10 ft³/s (0.28 m³/s) Mar. 12, July 6,7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	22	23	13	24	34	55	33	32	12	15	20
2	14	22	23	13	24	33	45	33	28	12	15	25
3	14	21	24	15	24	30	43	34	26	12	14	24
4	15	21	24	15	24	28	42	34	24	12	14	20
5	15	22	25	15	24	26	43	34	23	12	14	20
6	15	22	17	16	24	26	45	32	23	10	14	20
7	16	21	18	16	25	30	45	30	21	10	21	18
8	20	21	19	15	25	34	40	28	20	12	23	17
9	25	22	20	14	27	39	37	27	20	14	22	16
10	23	22	20	12	27	43	35	26	21	20	20	17
11	20	22	20	12	29	40	33	25	20	17	18	17
12	19	19	21	13	31	10	32	25	20	18	17	17
13	18	15	21	13	34	25	32	24	20	18	16	17
14	17	17	21	15	35	30	36	24	22	15	16	17
15	17	17	22	14	36	35	50	24	22	13	16	17
16	17	17	22	13	36	42	86	24	21	12	15	16
17	17	19	22	13	30	49	89	24	20	13	61	16
18	17	21	23	12	31	67	94	43	19	13	35	15
19	18	22	22	14	31	121	81	65	19	13	24	15
20	18	24	16	16	32	132	94	73	19	12	20	15
21	18	25	16	16	32	95	94	73	19	12	16	15
22	19	20	17	18	32	73	105	54	20	14	16	14
23	20	21	17	20	33	63	93	41	19	16	15	14
24	20	21	19	21	35	58	59	35	19	14	34	14
25	20	19	20	22	35	57	46	32	18	15	81	14
26	20	17	22	23	35	55	39	30	15	15	20	14
27	20	15	27	26	37	52	35	29	13	16	19	14
28	20	17	21	22	35	50	33	46	13	15	19	14
29	21	20	19	21	---	60	31	51	13	15	18	15
30	22	25	17	20	---	77	32	43	12	16	19	15
31	22	---	15	22	---	81	---	34	---	15	19	---
TOTAL	571	609	633	510	847	1595	1624	1130	601	433	686	501
MEAN	18.4	20.3	20.4	16.5	30.3	51.5	54.1	36.5	20.0	14.0	22.1	16.7
MAX	25	25	27	26	37	132	105	73	32	20	81	25
MIN	14	15	15	12	24	10	31	24	12	10	14	14
AC-FT	1130	1210	1260	1010	1680	3160	3220	2240	1190	859	1360	994

CAL YR 1976 TOTAL 8629.0 MEAN 23.6 MAX 86 MIN 7.0 AC-FT 17120
WTR YR 1977 TOTAL 9740.0 MEAN 26.7 MAX 132 MIN 10 AC-FT 19320

06837390 HUGH BUTLER LAKE NEAR MCCOOK, NE

LOCATION.--Lat 40°21'35", long 100°39'55", in SW1/4NW1/4 sec.31, T.5 N., R.29 W., Frontier County, Hydrologic Unit 10250007, in gate-control house at outlet tube of Red Willow Dam on Red Willow Creek, 12 mi (19 km) north of McCook.

DRAINAGE AREA.--730 mi² (1,890 km²), approximately, of which about 310 mi² (800 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--September 1961 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Gage is referred to mean sea level. Prior to July 10, 1962, nonrecording gages at present datum.

REMARKS.--Reservoir is formed by earthfill dam; storage began Sept. 5, 1961. Capacity, 31,470 acre-ft (38.8 hm³) between elevations 2,522.0 ft (769 m), sill of outlet works, and 2,581.8 ft (787 m), top of irrigation pool. Top of flood-control pool and crest of mean spillway at elevation 2,604.9 ft (794 m), capacity, 86,360 acre-ft (0.106 km³). Top of superstorage flood-control pool at elevation 2,627.8 ft (801 m), capacity, 162,600 acre-ft (0.200 km³). Dead storage, 6,310 acre-ft (7.78 hm³). Figures given herein represent total contents. Water used for irrigation in Frenchman-Cambridge irrigation project.

COOPERATION.--Capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 41,680 acre-ft (51.4 hm³) July 15,16, 1967, elevation, 2,584.14 ft (787.646 m); minimum since operation of reservoir began, 21,620 acre-ft (26.7 hm³) Nov. 8,9, 1962, elevation, 2,569.84 ft (783.287 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 35,800 acre-ft (44.1 hm³) June 5, elevation, 2,580.57 ft (786.558 m); minimum, 23,680 acre-ft (29.2 hm³) Oct. 1 (estimated).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,570	21,800	2,580	34,910
2,575	27,800	2,585	43,170

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23710	24560	25430	26460	27260	28470	31650	34080	35640	33550	27870	26730
2	23730	24580	25460	26480	27290	28620	31690	34200	35710	33320	27740	26740
3	23770	24610	25530	26520	27340	28620	31750	34260	35740	33100	27610	26760
4	23790	24620	25550	26570	27380	28620	31820	34280	35740	32820	27490	26780
5	23800	24670	25610	26590	27380	28630	31860	34280	35780	32600	27380	26760
6	23900	24690	25610	26630	27400	28670	31900	34290	35740	32310	27310	26730
7	23920	24710	25670	26660	27450	28720	31910	34320	35660	32090	27260	26680
8	23960	24750	25710	26660	27480	28780	31970	34340	35600	31800	27220	26680
9	23990	24790	25750	26710	27520	28830	32020	34340	35520	31610	27210	26610
10	24030	24800	25760	26710	27560	28920	32050	34340	35500	31410	27100	26580
11	24070	24830	25800	26710	27610	29340	32090	34340	35490	31260	27000	26590
12	24080	24830	25820	26720	27660	29380	32120	34340	35440	31160	26900	26620
13	24110	24830	25870	26730	27740	29420	32150	34340	35380	31060	26780	26640
14	24160	24880	25920	26780	27740	29460	32170	34340	35320	30900	26640	26640
15	24160	24910	25960	26780	27800	29510	32200	34340	35320	30740	26440	26630
16	24160	24930	26000	26810	27870	29600	32580	34360	35320	30610	26310	26640
17	24160	24990	26020	26850	27920	29660	32770	34360	35250	30450	26240	26640
18	24200	25030	26070	26850	27970	29810	32910	34370	35210	30240	26200	26660
19	24200	25040	26110	26910	28000	29980	33010	34430	35180	29940	26130	26640
20	24210	25110	26110	26930	28010	30130	33350	34650	35130	29640	26030	26590
21	24210	25120	26130	26960	28100	30300	33490	35030	35130	29350	25970	26620
22	24260	25120	26200	26970	28200	30480	33640	35050	35130	29130	25890	26620
23	24280	25160	26200	27030	28240	30520	33810	35130	35110	28970	25820	26620
24	24290	25210	26220	27050	28280	30580	33880	35250	35070	28860	25980	26620
25	24320	25250	26280	27080	28310	30720	33940	35380	35000	28700	26600	26610
26	24340	25310	26320	27120	28340	30830	33960	35440	34890	28580	26680	26590
27	24380	25290	26370	27150	28390	30960	34000	35500	34760	28510	26680	26590
28	24410	25280	26380	27160	28450	31080	34000	35500	34450	28420	26680	26610
29	24450	25330	26410	27200	---	31170	34000	35520	34220	28330	26690	26630
30	24500	25400	26420	27210	---	31280	34050	35580	33870	28200	26720	26670
31	24510	---	26420	27220	---	31470	---	35600	---	28010	26730	---
MAX	24510	25400	26420	27220	28450	31470	34050	35600	35780	33550	27870	26780
MIN	23710	24560	25430	26460	27260	28470	31650	34080	33870	28010	25820	26580
‡	2572.35	2573.09	2573.91	2574.55	2575.49	2577.69	2579.44	2580.48	2579.32	2575.16	2574.16	2574.11
≠	+840	+890	+1020	+800	+1230	+3020	+2580	+1550	-1730	-5960	-1280	-60

CAL YR 1976 MAX 36660 MIN 22720 ≠ -4420
WTR YR 1977 MAX 35780 MIN 23710 ≠ +3000

‡ Elevation, in feet, at end of month.
≠ Change in contents, in acre-feet.

06837500 RED WILLOW CREEK NEAR MCCOOK, NE

LOCATION.--Lat 40°20'50", long 100°38'35", in SW1/4NW1/4 sec.6, T.4 N., R.29 W., Red Willow County, Hydrologic Unit 10250007, on left bank 45 ft (14 m) downstream from bridge on U.S. Highway 83, 3 mi (5 km) downstream from Red Willow Dam and 10 mi (16 km) north of McCook.

DRAINAGE AREA.--740 mi² (1,920 km²), approximately, of which about 320 mi² (830 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1940 to September 1947. Annual maximums, water years 1958-60. October 1960 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.-- WSP 2119: Drainage area.

GAGE.--Water-stage recorder, concrete control since Dec. 23, 1965. Datum of gage is 2,485.97 ft (757.724 m) above mean sea level. October 1940 to September 1947 water-stage recorder at site 45 ft (13.7 m) upstream at datum 9.55 ft (2.911 m) higher. Nov. 22, 1957, to Sept. 30, 1960, crest-stage gage, Oct. 1, 1960, to Apr. 5, 1961, nonrecording gage, and Apr. 6, 1961 to Sept. 26, 1974 water-stage recorder at site 45 ft (13.7 m) upstream, present datum.

REMARKS.--Records fair. Natural flow affected by irrigation development above station and, since Sept. 5, 1961, by storage in Hugh Butler Lake (station 06837390).

AVERAGE DISCHARGE.--28 years, 24.8 ft³/s (0.702 m³/s), 17,970 acre-ft/yr (22.2 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s) June 22, 1947, gage height, 31.95 ft (9.738 m), present datum, from rating curve extended above 2,500 ft³/s (70.8 m³/s) on basis of contracted-opening measurement of peak flow; minimum daily, 0.60 ft³/s (0.017 m³/s) Sept. 22, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Flood of June 1, 1935, reached a stage of 33.45 ft (10.196 m), from floodmarks, discharge, 45,000 ft³/s (1,270 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 162 ft³/s (4.59 m³/s) June 30, July 1, gage height, 10.48 ft (3.194 m); minimum daily, 3.3 ft³/s (0.093 m³/s) Apr. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	4.2	4.2	4.0	4.5	4.5	4.8	3.8	3.9	146	87	4.2
2	5.0	4.2	4.0	4.2	4.4	4.5	5.4	3.9	4.6	130	87	4.7
3	5.0	3.9	4.2	4.2	4.3	4.5	5.0	3.8	5.1	129	88	4.7
4	4.6	4.0	4.2	4.2	4.4	4.5	4.9	3.7	4.2	130	87	13
5	3.9	4.2	4.2	4.4	4.4	4.5	4.7	3.5	4.9	128	68	28
6	4.0	4.0	4.2	4.4	4.5	4.5	4.9	3.6	5.1	128	86	28
7	4.1	4.2	4.0	4.4	4.5	4.5	4.7	3.6	19	127	81	28
8	4.0	4.2	4.0	4.2	4.5	4.5	4.4	3.5	50	126	82	27
9	4.0	4.2	4.2	4.2	4.4	4.4	4.2	3.4	35	126	82	16
10	4.0	4.2	4.0	4.2	4.0	3.9	4.7	3.4	31	127	58	4.3
11	4.0	3.9	4.0	4.2	4.4	3.9	4.7	3.8	25	102	73	4.1
12	3.9	4.0	4.2	4.2	4.5	4.5	4.5	4.3	26	66	68	4.1
13	3.9	4.0	4.4	4.2	4.5	5.7	4.5	3.7	25	54	62	4.0
14	3.9	4.0	4.4	4.4	4.5	5.5	4.4	3.9	26	68	83	4.0
15	3.9	4.0	4.4	4.4	4.5	5.3	4.2	4.0	23	85	106	4.0
16	3.9	3.9	4.7	4.2	4.6	5.1	4.2	3.7	19	64	93	4.0
17	3.9	3.9	4.7	4.2	4.5	5.2	4.0	3.9	20	75	78	4.0
18	3.9	3.9	4.7	4.2	4.5	5.1	4.0	4.2	20	106	78	3.8
19	4.2	3.9	4.7	4.4	4.5	6.1	4.0	3.9	20	128	64	3.9
20	4.2	3.9	4.4	4.4	4.5	5.3	6.2	6.6	19	137	54	3.8
21	4.0	4.0	4.7	4.4	4.6	4.9	5.1	10	21	128	58	3.7
22	4.2	4.2	4.7	4.2	4.6	4.9	4.9	5.9	25	106	58	4.2
23	4.4	4.2	4.7	4.2	5.0	4.9	4.9	5.3	26	97	58	4.2
24	4.4	4.2	4.7	4.4	4.6	4.9	4.8	4.8	33	97	48	4.2
25	4.2	4.2	4.7	4.5	4.5	4.9	4.5	5.5	40	86	40	4.2
26	3.9	4.2	4.7	4.5	4.5	4.9	4.2	5.1	48	55	17	4.2
27	3.9	4.0	4.7	4.6	4.4	4.9	3.8	4.0	66	48	5.2	4.2
28	3.9	4.2	4.4	4.6	4.5	5.5	3.3	4.2	117	50	4.9	4.2
29	4.0	4.2	4.2	4.7	---	5.0	3.4	4.8	121	60	4.9	4.2
30	4.0	4.2	4.2	4.7	---	4.7	3.4	5.5	144	70	4.7	4.2
31	4.2	---	4.0	5.4	---	4.7	---	5.5	---	83	4.0	---
TOTAL	128.5	122.3	135.5	135.4	125.6	150.2	134.3	138.0	1026.8	3062	1695.7	239.1
MEAN	4.15	4.08	4.37	4.37	4.49	4.85	4.48	4.45	34.2	98.8	54.7	7.97
MAX	5.1	4.2	4.7	5.4	5.0	6.1	6.2	10	144	146	106	28
MIN	3.9	3.9	4.0	4.0	4.0	3.9	3.3	3.4	3.9	48	4.0	3.7
AC-FT	255	243	269	269	249	298	266	274	2040	6070	3360	474

CAL YR 1976 TOTAL 9928.7 MEAN 27.1 MAX 158 MIN 3.9 AC-FT 19690
WTR YR 1977 TOTAL 7093.4 MEAN 19.4 MAX 144 MIN 3.3 AC-FT 14070

06838000 RED WILLOW CREEK NEAR RED WILLOW, NE

LOCATION.--Lat 40°14'10", long 100°30'00", in NE1/4NE1/4 sec.17, T.3 N., R.28 W., Red Willow County, Hydrologic Unit 10250007, on right bank near downstream side of bridge on U.S. Highways 6 and 34, 0.8 mi (1.3 km) north of Red Willow and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--830 mi² (2,150 km²), approximately, of which about 410 mi² (1,060 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--September 1939 to current year.

REVISED RECORDS.--WSP 1510: 1945(M). WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,398.64 ft (731.105 m) above mean sea level. Prior to May 26, 1945, nonrecording gage at bridge 1.2 mi (1.9 km) upstream at datum 11.16 ft (3.402 m) higher, and May 26, 1945 to Aug. 2, 1976, water-stage recorder on left bank at downstream side of bridge, present datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow affected by irrigation development above station, since Sept. 5, 1961, by storage in Hugh Butler Lake (station 06837390), and since June 1963 by Red Willow Canal which diverts 4.5 mi (7.2 km) above station for irrigation of about 4,150 acres (16.8 km²).

AVERAGE DISCHARGE.--38 years, 31.0 ft³/s (0.878 m³/s), 22,460 acre-ft/yr (27.7 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s) June 22, 1947, gage height, 18.36 ft (5.596 m), from rating curve extended above 6,800 ft³/s (193 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.33 ft³/s (0.009 m³/s) Sept. 8, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 190 ft³/s (5.38 m³/s) Aug. 25, gage height, 6.97 ft (2.124 m); minimum daily, 1.2 ft³/s (0.034 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	7.7	8.0	7.0	6.8	11	9.8	9.4	2.1	58	30	7.3
2	6.6	7.8	8.0	6.5	6.8	11	11	10	8.1	34	23	7.6
3	6.6	7.7	8.2	6.0	7.0	11	10	11	10	31	21	7.6
4	6.2	7.7	8.2	6.0	7.4	10	10	9.7	9.2	30	21	8.5
5	6.4	7.8	7.8	5.6	7.2	9.4	9.3	8.9	9.5	27	31	10
6	6.9	7.9	7.6	5.8	7.0	10	8.9	8.9	9.7	26	20	6.5
7	8.3	7.7	8.0	6.4	6.8	10	8.8	8.7	9.1	40	14	2.7
8	7.4	7.8	8.0	6.2	6.8	10	8.5	9.1	20	36	12	5.8
9	7.1	7.9	8.2	6.0	7.4	9.9	8.5	8.8	16	38	11	5.0
10	7.1	7.8	8.2	6.0	8.0	9.6	8.8	8.9	13	57	12	9.1
11	6.9	7.8	8.5	6.5	8.0	8.0	8.7	8.9	9.6	47	36	7.6
12	7.1	7.0	8.5	7.0	8.6	4.5	8.4	9.0	9.4	26	38	7.6
13	7.1	6.6	9.0	7.4	8.8	11	7.5	9.5	11	16	23	7.7
14	7.1	8.5	10	7.8	9.4	15	7.5	9.4	12	13	26	7.6
15	7.1	10	10	7.6	8.5	12	12	9.9	12	29	65	10
16	7.3	10	12	7.0	8.8	11	37	9.2	6.7	15	85	8.9
17	7.6	9.0	14	7.4	9.2	12	15	8.8	4.2	8.2	55	8.5
18	7.6	8.2	12	6.8	9.4	11	11	9.3	4.5	29	60	8.3
19	8.0	8.2	10	7.4	9.8	13	10	10	4.8	53	40	8.2
20	8.1	8.1	7.8	8.5	10	12	17	18	4.4	68	20	8.5
21	8.1	8.0	7.8	8.3	10	11	13	84	3.5	68	20	8.2
22	8.1	7.5	8.0	8.0	11	11	11	31	7.2	56	19	8.2
23	8.0	8.0	8.0	7.8	11	10	11	16	4.1	42	18	8.4
24	7.6	8.2	8.2	7.6	11	11	10	13	3.1	41	18	8.2
25	7.8	8.2	8.4	7.6	11	10	10	14	7.1	44	87	8.2
26	8.0	8.2	8.6	7.6	11	10	10	16	7.2	23	16	8.2
27	8.0	7.8	8.8	8.0	11	9.8	9.9	16	9.1	12	13	6.0
28	8.0	7.0	8.8	7.8	11	11	9.3	12	38	10	9.7	8.4
29	7.9	7.0	8.6	7.2	---	11	9.6	12	40	12	9.3	7.6
30	7.9	7.8	8.0	6.8	---	9.6	9.6	12	44	10	9.0	1.2
31	7.6	---	7.5	6.8	---	9.5	---	9.2	---	27	8.3	---
TOTAL	229.9	238.9	272.7	218.4	249.1	325.3	331.1	430.6	346.6	1026.2	866.3	235.6
MEAN	7.42	7.96	8.80	7.05	8.90	10.5	11.0	13.9	11.6	33.1	27.9	7.85
MAX	8.3	10	14	8.5	11	15	37	84	44	68	87	10
MIN	6.2	6.6	7.5	5.6	6.8	4.5	7.5	8.7	2.1	8.2	8.3	1.2
AC-FT	456	474	541	433	494	645	657	854	676	2040	1720	467

CAL YR 1976 TOTAL 4817.9 MEAN 13.2 MAX 86 MIN 4.6 AC-FT 9560
WTR YR 1977 TOTAL 4764.7 MEAN 13.1 MAX 87 MIN 1.2 AC-FT 9450

06841000 MEDICINE CREEK ABOVE HARRY STRUNK LAKE, NE

LOCATION.--Lat 40°30'10", long 100°19'20", in SW1/4 sec.7, T.6 N., R.26 W., Frontier County, Hydrologic Unit 10250008, on right bank 0.3 mi (0.5 km) downstream from top of Harry Strunk Lake flood-control pool, 2.5 mi (4.0 km) upstream from top of irrigation pool, 3.8 mi (6.1 km) southeast of Stockville, and 13.5 mi (21.7 km) upstream from Medicine Creek Dam.

DRAINAGE AREA.--770 mi^2 (1,990 km^2), approximately, of which about 530 mi^2 (1,370 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--January 1950 to current year. Prior to October 1950, published as "above Medicine Creek Reservoir."

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Concrete control since November 1950. Datum of gage is 2,380.94 ft (725.711 m) above mean sea level (Bureau of Reclamation bench mark).

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--27 years, 68.1 ft^3/s (1.929 m^3/s), 49,340 acre-ft/yr (60.8 hm^3/yr); median of yearly mean discharges, 59 ft^3/s (1.671 m^3/s), 42,700 acre-ft/yr (52.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,600 ft^3/s (329 m^3/s) June 21, 1967, gage height, 20.05 ft (6.111 m); minimum daily, 13 ft^3/s (0.37 m^3/s) Aug. 25, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1874, 24.4 ft (7.44 m) June 22, 1947, from floodmark (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft^3/s (34.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 16	0415	*2200	62.3	12.56	3.828
May 21	1830	2060	58.3	12.24	3.731

Minimum daily discharge, 24 ft^3/s (0.68 m^3/s) July 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	46	40	35	37	60	71	59	135	31	30	38
2	34	46	41	32	38	60	68	156	102	31	42	42
3	34	46	42	32	40	59	65	105	82	32	43	38
4	34	46	43	31	43	58	64	71	69	29	38	38
5	35	46	44	30	45	57	70	62	64	30	50	40
6	38	46	44	30	47	56	69	58	61	30	47	39
7	41	46	44	31	44	56	63	56	60	29	46	35
8	53	47	45	31	44	58	57	56	58	33	43	33
9	53	48	45	32	47	59	64	54	55	36	41	32
10	48	48	45	32	50	61	61	54	53	44	34	31
11	45	48	46	32	55	66	60	54	52	52	34	32
12	42	48	46	32	60	57	58	53	51	46	33	39
13	42	46	47	33	65	68	55	54	52	40	32	38
14	42	45	48	34	66	90	55	55	52	35	30	37
15	41	44	50	35	66	87	87	55	51	35	30	36
16	41	44	53	35	66	87	750	53	49	32	34	34
17	41	48	56	33	65	87	149	52	49	31	55	36
18	41	47	54	32	64	86	115	53	50	29	49	36
19	42	49	54	35	64	94	96	54	51	28	36	35
20	43	49	49	40	63	91	152	64	52	26	30	34
21	43	50	46	45	62	85	122	763	52	24	30	34
22	44	51	44	50	62	75	116	309	52	29	29	33
23	46	51	44	52	62	70	98	144	50	29	31	33
24	45	48	45	52	66	69	82	99	50	28	37	34
25	44	48	46	50	66	69	71	79	47	53	65	34
26	44	50	49	52	66	70	66	89	43	37	50	34
27	44	47	53	55	64	69	63	72	41	33	38	34
28	44	43	51	50	61	73	60	63	38	30	35	32
29	45	40	47	45	---	81	59	59	35	29	36	54
30	46	40	42	40	---	89	60	324	32	28	38	50
31	46	---	38	37	---	78	---	189	---	28	36	---
TOTAL	1315	1401	1441	1185	1578	2225	3026	3468	1688	1027	1202	1095
MEAN	42.4	46.7	46.5	38.2	56.4	71.8	101	112	56.3	33.1	38.8	36.5
MAX	53	51	56	55	66	94	750	763	135	53	65	54
MIN	34	40	38	30	37	56	55	52	32	24	29	31
AC-FT	2610	2780	2860	2350	3130	4410	6000	6880	3350	2040	2380	2170

CAL YR 1976 TOTAL 18085 MEAN 49.4 MAX 105 MIN 13 AC-FT 35870
WTR YR 1977 TOTAL 20651 MEAN 56.6 MAX 763 MIN 24 AC-FT 40960

06842000 HARRY STRUNK LAKE NEAR CAMBRIDGE, NE

LOCATION.--Lat 40°22'40", long 100°13'00", in NE1/4 sec.25, T.5 N., R.26 W., Frontier County, Hydrologic Unit 10250008, near right bank in control house at outlet tube of Medicine Creek Dam on Medicine Creek, 7 mi (11 km) northwest of Cambridge.

DRAINAGE AREA.--880 mi^2 (2,280 km^2), approximately, of which about 640 mi^2 (1,660 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--August 1949 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Aug. 18, 1960, nonrecording gage at present datum.

REMARKS.--Reservoir is formed by earthfill dam; storage began Aug. 8, 1949. Capacity, 32,230 acre-ft (39.7 hm^3) between elevation 2,335.0 ft (712 m), sill of outlet gates, and 2,366.1 ft (721 m), top of storage pool and crest of slot in spillway. Top of flood-control pool and crest of main spillway at elevation 2,3[illegible] ft (727 m), capacity, 89,310 acre-ft (0.110 km^3). Top of superstorage flood-control pool at elevation [illegible]0.0 ft (732 m), capacity, 147,400 acre-ft (0.182 km^3). Maximum water-surface elevation, 2,408.9 ft (734 m), 196,000 acre-ft (0.242 km^3). Dead storage, 4,910 acre-ft (6.05 hm^3). Figures given herein represent total contents. Water used for irrigation in Frenchman-Cambridge irrigation project.

COOPERATION.--Capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 55,750 acre-ft (68.7 hm^3) Mar. 23, 1960, elevation, 2,374.10 ft (723.626 m); minimum since operation of reservoir began, 9,710 acre-ft (12.0 hm^3) Sept. 9, 1976, elevation 2,343.23 ft (714.217 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 40,700 acre-ft (50.2 hm^3) June 1-2, elevation, 2,367.96 ft (721.754 m); minimum, 11,380 acre-ft (13.9 hm^3) Oct. 1, elevation, 2,345.38 ft (714.872 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,345	11,000	2,360	27,100
2,350	15,250	2,365	35,140
2,355	20,550	2,370	44,890

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11370	13750	16140	18690	21150	24140	28580	33780	40700	37080	25680	21320
2	11440	13830	16240	18770	21210	24380	28610	34170	40680	36610	25310	21390
3	11540	13890	16290	18860	21310	24420	28700	34440	40640	36210	25000	21460
4	11550	13970	16390	18980	21400	24490	28890	34600	40600	35700	24700	21510
5	11590	14060	16520	19070	21500	24560	29010	34650	40530	35160	24480	21570
6	11730	14150	16590	19160	21590	24660	29120	34740	40490	34640	24420	21630
7	11780	14220	16680	19280	21690	24780	29230	34810	40390	34100	24370	21710
8	11880	14340	16760	19280	21760	24940	29330	34910	40330	33700	24310	21740
9	11980	14420	16860	19370	21880	25010	29430	34980	40210	33180	24130	21760
10	12090	14490	16930	19460	21980	25220	29530	35040	40150	32850	23790	21760
11	12170	14530	17010	19510	22090	25440	29600	35110	40080	32670	23590	21840
12	12240	14610	17080	19600	22200	25580	29720	35180	40020	32650	23440	21890
13	12300	14650	17190	19670	22370	25680	29740	35270	39920	32650	23280	21940
14	12400	14730	17280	19760	22450	25890	29840	35500	39780	32490	23040	21960
15	12430	14820	17370	19820	22580	25990	30030	35600	39700	32130	22800	22010
16	12480	14920	17460	19900	22700	26150	31150	35690	39700	31860	22480	22090
17	12560	15040	17610	20000	22810	26330	31430	35720	39680	31650	22350	22190
18	12650	15110	17690	20070	23000	26570	31600	35870	39630	31140	22130	22190
19	12680	15190	17750	20110	23050	26760	31980	35870	39610	30610	21980	22200
20	12760	15310	17810	20160	23180	26970	32300	36210	39490	29950	21790	22270
21	12840	15350	17900	20230	23290	27060	32520	38300	39490	29180	21550	22340
22	12930	15410	17950	20310	23510	27160	32750	39120	39490	28690	21210	22340
23	13050	15530	18010	20400	23620	27280	32950	39300	39490	28360	20910	22180
24	13110	15630	18110	20480	23710	27430	33050	39410	39390	27840	20600	22390
25	13180	15740	18180	20560	23780	27540	33150	39550	39390	27470	20790	22430
26	13250	15840	18290	20670	23840	27650	33250	39720	39300	27140	20920	22440
27	13310	15860	18460	20760	23990	27690	33450	39820	39120	26930	20960	22500
28	13400	15870	18530	20850	24080	28080	33450	39820	38640	26730	20970	22520
29	13490	15970	18610	20930	---	28180	33570	39820	38210	26530	21100	22750
30	13570	16080	18640	20970	---	28280	33660	40490	37630	26300	21230	22830
31	13650	---	18640	21040	---	28360	---	40640	---	26010	21270	---
MAX	13650	16080	18640	21040	24080	28360	33660	40640	40700	37080	25680	22830
MIN	11370	13750	16140	18690	21150	24140	28580	33780	37630	26010	20600	21320
‡	2348.28	2350.85	2353.32	2355.41	2357.82	2360.85	2364.15	2367.93	2366.36	2359.23	2355.60	2356.86
≠	+2350	+2430	+2560	+2400	+3040	+4280	+5300	+6980	-3010	-11620	-4740	+1560

CAL YR 1976 MAX 38910 MIN 9720 ≠ -9270
WTR YR 1977 MAX 40700 MIN 11370 ≠+11530

‡ Elevation, in feet, at end of month.
≠ Change in contents, in acre-feet.

06842500 MEDICINE CREEK BELOW HARRY STRUNK LAKE, NE

LOCATION.--Lat 40°22'20", long 100°13'20", at center of sec.25, T.5 N., R.26 W., Frontier County, Hydrologic Unit 10250008, on right bank 0.5 mi (0.8 km) downstream from Medicine Creek Dam and 6.5 mi (10.5 km) northwest of Cambridge.

DRAINAGE AREA.--880 mi² (2,280 km²), approximately, of which about 640 mi² (1,660 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1949 to current year. Prior to October 1950, published as "below Medicine Creek Dam." Monthly discharge only for some periods, published in WSP 1730.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Concrete control since August 1950. Datum of gage is 2,295.26 ft (699.595 m) above mean sea level (Bureau of Reclamation bench mark). Prior to Apr. 24, 1950, nonrecording gage at site 0.5 mi (0.8 km) upstream at different datum.

REMARKS.--Records good. Flow regulated by Harry Strunk Lake (station 06842000).

AVERAGE DISCHARGE.--28 years, 64.0 ft³/s (1.812 m³/s), 46,370 acre-ft/yr (57.2 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,300 ft³/s (36.8 m³/s) Mar. 23, 1960, gage height, 5.97 ft (1.820 m); minimum daily, 0.10 ft³/s (0.003 m³/s) Nov. 13, 1952, Sept. 19, 1963, Sept. 27-29, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 333 ft³/s (9.43 m³/s) July 19-21, gage height, 3.02 ft (0.920 m); minimum daily, 0.12 ft³/s (0.003 m³/s) Oct. 8,9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	.60	.65	.64	.67	.84	.87	1.1	97	280	180	1.7
2	.25	.61	.67	.66	.64	.91	.85	1.7	86	251	214	1.5
3	.23	.58	.67	.64	.68	.87	.95	1.3	86	234	206	1.6
4	1.3	.57	.65	.70	.65	.80	.95	1.1	82	202	194	1.5
5	.20	.60	.67	.72	.66	.80	.80	1.0	79	251	184	1.4
6	.15	.62	.68	.72	.66	.80	.81	1.0	81	272	76	1.3
7	.13	.57	.63	.71	.65	.82	.80	1.0	75	274	87	1.2
8	.12	.62	.63	.66	.69	.88	.80	1.0	73	250	106	1.0
9	.12	.85	.63	.71	.70	.90	.80	1.0	69	234	140	.59
10	.17	1.3	.61	.72	1.8	.95	.83	.99	67	214	135	.57
11	.21	.89	.59	.71	.99	1.5	2.5	1.0	67	97	135	.51
12	.24	.68	.60	.71	.98	1.0	1.3	.99	63	33	125	.62
13	.15	.68	.59	.71	.99	.94	1.1	.99	60	39	116	.54
14	.18	.72	.56	1.6	.95	.97	1.1	1.3	60	117	118	.50
15	.18	.72	.56	.70	1.0	.86	1.3	1.4	57	159	179	.51
16	.19	.74	.57	.66	1.0	.87	1.5	1.0	55	184	164	.51
17	.25	.72	.59	.66	.97	.89	1.2	.99	53	153	138	.51
18	.34	.73	.64	.64	.97	.88	1.1	1.4	52	201	182	.58
19	1.2	.72	.67	.69	.92	1.3	1.3	1.2	51	298	180	.63
20	.60	.75	.65	.71	1.0	1.0	2.4	1.4	49	321	136	.46
21	.51	.73	.68	.71	1.0	.90	1.3	6.7	49	308	182	.65
22	.51	.72	.68	.71	1.0	.80	1.2	37	48	272	185	1.1
23	.54	.67	.68	.71	1.1	.79	1.1	48	53	249	200	1.5
24	.53	.69	.69	.71	.89	.79	1.1	52	43	208	186	1.0
25	.53	.70	.70	.70	.90	.80	1.1	56	60	212	70	.81
26	.53	.73	.71	.69	.87	.81	1.1	62	68	160	1.7	.72
27	.53	.61	.71	.72	.87	.85	1.1	65	117	129	1.3	.66
28	.55	.62	.64	.67	.82	1.4	1.1	65	188	122	1.3	.97
29	.55	.64	.66	.66	---	.97	1.3	65	261	121	1.2	.78
30	.57	.68	.64	.67	---	.87	1.2	70	268	126	1.2	.19
31	.59	---	.61	.66	---	.80	---	95	---	138	1.4	---
TOTAL	12.42	21.06	19.95	22.28	25.02	28.58	34.86	644.96	2517	6109	3626.1	26.07
MEAN	.40	.70	.64	.72	.89	.92	1.16	20.8	83.9	197	117	.87
MAX	1.3	1.3	.71	1.6	1.8	1.5	2.5	95	268	321	214	1.7
MIN	.12	.57	.56	.64	.64	.79	.80	.99	48	33	1.2	.19
AC-FT	25	42	40	44	50	57	69	1280	4990	12120	7190	52

CAL YR 1976 TOTAL 21139.96 MEAN 57.8 MAX 406 MIN .12 AC-FT 41930
WTR YR 1977 TOTAL 13087.30 MEAN 35.9 MAX 321 MIN .12 AC-FT 25960

06843500 REPUBLICAN RIVER AT CAMBRIDGE, NE

LOCATION.--Lat 40°17'05", long 100°08'35", in NW1/4SE1/4 sec.28, T.4 N., R.25 W., Furnas County, Hydrologic Unit 10250004, on left bank 400 ft (122 m) south of U.S. Highways 6 and 34, 0.5 mi (0.8 km) downstream from Medicine Creek, 1 mi (2 km) east of Cambridge, and 1.3 mi (2.1 km) upstream from Cambridge diversion dam.

DRAINAGE AREA.--14,520 mi² (37,600 km²), approximately, of which about 7,810 mi² (20,200 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--September 1945 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,239.07 ft (682.469 m) above mean sea level. Prior to July 13, 1948, nonrecording gage at site 150 ft (46 m) upstream at same datum and July 13, 1948, to Sept. 25, 1950, at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station and since 1949 by regulation from upstream reservoirs.

AVERAGE DISCHARGE.--32 years, 330 ft³/s (9.346 m³/s), 239,100 acre-ft/yr (0.295 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 160,000 ft³/s (4,530 m³/s) June 22, 1947, gage height, 16.7 ft (5.09 m), from floodmarks, from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 6.4 ft³/s (0.18 m³/s) Aug. 14, 1949.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Maximum stage since at least 1826, 17.6 ft (5.36 m) May 31 to June 1, 1935, from information by local resident, discharge, about 280,000 ft³/s (7,930 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,880 ft³/s (138 m³/s) May 22, gage height, 8.52 ft (2.597 m); minimum daily, 48 ft³/s (1.36 m³/s) Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	96	72	80	100	146	216	175	297	336	201	157
2	51	98	80	78	105	144	237	205	269	411	270	150
3	51	100	90	75	115	145	256	377	230	380	264	350
4	48	101	98	75	120	143	252	239	241	336	248	500
5	59	105	105	75	120	140	235	193	216	348	265	296
6	69	110	110	75	125	135	222	168	363	379	248	192
7	93	111	115	75	125	136	214	162	254	376	251	168
8	97	111	120	70	130	147	207	158	181	460	170	151
9	95	110	125	60	140	150	201	155	180	404	210	144
10	92	110	130	55	150	154	194	149	162	570	173	134
11	91	112	125	56	160	197	189	148	168	452	152	120
12	86	113	120	58	175	233	186	137	162	326	159	128
13	83	100	110	58	200	195	185	128	166	202	162	122
14	86	98	110	60	220	174	176	129	184	200	120	116
15	77	105	108	58	210	179	179	176	154	255	183	112
16	78	110	105	56	217	185	859	130	159	187	264	115
17	78	124	100	55	178	216	595	116	171	160	224	106
18	79	120	95	58	154	227	314	113	151	178	198	102
19	106	116	80	60	151	275	283	137	166	269	190	95
20	112	114	70	65	145	281	440	130	149	138	210	92
21	111	115	60	70	149	292	399	2300	147	367	212	88
22	110	119	60	80	152	285	329	2570	120	361	227	86
23	108	121	70	90	161	260	293	982	125	314	256	86
24	113	124	85	95	174	233	264	568	133	289	255	79
25	104	121	110	95	164	210	235	466	133	300	1060	77
26	104	121	140	100	160	204	216	516	121	286	1570	78
27	101	100	140	110	157	200	200	478	151	184	526	81
28	104	85	130	95	150	232	181	395	230	162	300	92
29	101	67	120	80	---	256	178	328	274	148	289	97
30	101	70	100	80	---	236	187	293	298	158	210	93
31	98	---	90	90	---	222	---	316	---	190	181	---
TOTAL	2737	3203	3173	2287	4303	6232	8120	12611	5712	9236	9248	4205
MEAN	88.3	107	102	73.8	154	201	271	407	190	298	298	140
MAX	113	124	140	110	220	292	859	2570	363	570	1570	500
MIN	48	67	60	55	100	135	176	113	121	148	120	77
AC-FT	5430	6350	6290	4540	8530	12360	16110	25010	11330	18320	18340	8340

CAL YR 1976 TOTAL 67016 MEAN 183 MAX 1070 MIN 32 AC-FT 132900
WTR YR 1977 TOTAL 71167 MEAN 195 MAX 2570 MIN 48 AC-FT 141100

06844500 REPUBLICAN RIVER NEAR ORLEANS, NE

LOCATION.--Lat 40°07'53", long 99°30'00", in NE1/4SE1/4 sec.19, T.2 N., R.19 W., Harlan County, Hydrologic Unit 10250009, on right bank 16 ft (5 m) downstream from bridge on State Highway 89, 200 ft (61 m) downstream from Burlington Northern Inc. bridge, 2 mi (3 km) west of Orleans, 2.8 mi (4.5 km) upstream from Sappa Creek, and 23 mi (37 km) upstream from Harlan County Dam.

DRAINAGE AREA.--15,640 mi² (40,500 km²), approximately, of which about 8,910 mi² (23,100 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1947 to current year.

REVISED RECORDS.-- WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,972.57 ft (601.239 m) above mean sea level. Prior to June 2, 1948, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow affected by irrigation development above station and regulation by upstream reservoirs.

AVERAGE DISCHARGE.--30 years, 323 ft³/s (9.147 m³/s), 234,000 acre-ft/yr (0.289 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,600 ft³/s (1,150 m³/s) June 22, 1968, gage height, 11.25 ft (3.429 m), from rating curve extended above 29,000 ft³/s (821 m³/s); maximum gage height, 12.60 ft (3.840 m) Mar. 22, 1960, backwater from ice; no flow at times in 1952-57, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Maximum flood since at least 1826 occurred June 1, 1935. Flood of June 23, 1947, reached a stage of 14.00 ft (4.267 m), from floodmark (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,520 ft³/s (128 m³/s) May 23, gage height, 9.58 ft (2.920 m); minimum daily, 21 ft³/s (0.59 m³/s) July 31, Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	105	80	90	85	192	283	236	792	65	21	160
2	55	104	85	75	95	199	270	267	491	71	25	160
3	52	104	90	58	100	198	275	410	371	64	28	170
4	51	105	90	59	120	196	299	551	308	78	44	300
5	51	107	95	60	130	192	289	401	288	70	48	600
6	58	108	100	62	130	190	285	333	275	56	69	300
7	74	107	125	65	135	184	275	287	261	85	72	220
8	75	108	140	62	145	180	260	262	320	42	84	182
9	85	107	140	60	160	186	250	251	235	45	74	153
10	90	106	150	58	185	193	245	239	202	82	51	121
11	85	108	155	58	210	207	243	226	188	120	53	118
12	82	108	150	56	230	229	229	218	175	167	45	116
13	80	98	140	56	250	249	230	209	171	139	36	118
14	78	105	130	56	260	244	236	196	161	86	33	120
15	77	120	125	56	280	220	233	192	154	74	31	118
16	78	132	125	54	307	221	227	706	152	60	28	111
17	79	142	120	54	315	221	563	404	140	70	30	109
18	78	155	115	56	304	226	648	269	136	61	57	104
19	82	134	100	58	275	252	450	236	133	43	56	98
20	85	127	90	62	268	276	446	205	122	31	44	94
21	88	125	85	68	262	287	532	241	116	27	28	88
22	90	126	90	77	259	295	522	1020	119	33	27	86
23	94	127	85	92	241	290	434	3310	170	38	32	83
24	96	135	105	105	231	280	370	1300	160	38	27	75
25	99	137	120	115	223	269	342	813	130	38	52	72
26	97	138	140	115	220	264	308	677	108	35	186	71
27	99	115	150	120	206	263	290	643	96	48	929	69
28	101	100	150	110	198	276	267	570	79	50	446	68
29	104	85	140	93	---	295	243	510	73	40	268	73
30	105	80	120	84	---	311	238	444	67	29	212	80
31	104	---	100	80	---	300	---	448	---	21	186	---
TOTAL	2530	3456	3630	2278	5824	7389	9770	16076	6195	1842	3318	4227
MEAN	81.6	115	117	73.4	208	238	326	519	207	59.4	107	141
MAX	105	155	155	120	315	311	648	3310	792	167	929	600
MIN	51	80	80	54	85	184	227	192	67	21	21	68
AC-FT	5020	6850	7200	4510	11550	14660	19380	31880	12290	3650	6580	8380

CAL YR 1976 TOTAL 56656.4 MEAN 155 MAX 1520 MIN 5.5 AC-FT 112400
WTR YR 1977 TOTAL 66529.0 MEAN 182 MAX 3310 MIN 21 AC-FT 132000

06844500 REPUBLICAN RIVER NEAR ORLEANS, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)
OCT										
20...	0930	90	900	8.0	2.0	12	12.1	11	120	130
NOV										
22...	1000	100	860	8.0	.0	26	12.7	8.0	7300	100
DEC										
20...	1030	94	780	7.7	.0	15	12.9	3.0	750	--
JAN										
17...	0930	60	890	7.5	.0	4	7.6	10	1900	130
FEB										
15...	1100	261	900	7.6	.0	45	12.5	1.2	>300	69
MAR										
14...	1145	238	950	8.0	8.0	80	12.3	5.1	18300	420
APR										
25...	1045	360	640	8.0	15.0	150	9.8	7.2	6600	950
MAY										
23...	1345	4600	250	7.3	18.0	850	7.0	6.4	250000	21000
JUN										
20...	1000	75	640	8.3	21.0	50	10.2	10	>20000	--
JUL										
06...	1045	56	560	8.0	26.0	45	8.7	--	--	--
18...	0930	60	570	8.1	29.0	40	8.5	24	3200	880
AUG										
16...	0930	30	580	7.8	22.0	15	7.4	2.2	24000	--
29...	1130	268	360	7.7	20.5	400	8.3	--	--	--
SEP										
26...	0930	57	640	8.0	19.0	30	9.8	5.0	5300	--

DATE	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)
OCT										
20...	--	25	--	.66	.08	.65	.69	1.7	.21	.16
NOV										
22...	--	28	497	.68	.12	.69	.81	2.7	.27	--
DEC										
20...	--	24	467	.64	.09	.47	.56	2.7	.22	--
JAN										
17...	--	28	--	.75	.25	.34	.59	3.2	.33	.25
FEB										
15...	--	23	339	.46	.19	.91	1.0	2.8	.27	--
MAR										
14...	--	22	381	.52	.09	1.2	1.3	2.7	.45	--
APR										
25...	--	24	--	.66	.09	1.3	1.4	3.0	.53	.30
MAY										
23...	--	6.3	168	.23	.21	5.4	5.6	6.0	1.5	--
JUN										
20...	--	22	430	.58	.03	1.2	1.2	1.2	.28	--
JUL										
06...	--	--	--	--	--	--	--	--	--	--
18...	--	18	--	.53	.08	1.1	1.1	1.1	.25	.20
AUG										
16...	750	18	405	.55	.01	1.3	1.3	1.4	.19	--
29...	--	--	--	--	--	--	--	--	--	--
SEP										
26...	720	27	503	.68	.01	.97	.98	3.0	.34	--

06844500 REPUBLICAN RIVER NEAR ORLEANS, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)
OCT 20...	0930	7	280	0	71	25	56	1.3	18	349
JAN 17...	0930	7	340	7	91	27	52	1.2	18	404
APR 25...	1045	23	290	15	78	22	50	1.3	19	330
JUL 18...	0930	22	210	0	52	20	43	1.3	18	270

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED FLUORIDE (F) (MG/L) (00950)	DISSOLVED SILICA (SIO2) (MG/L) (00955)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DISSOLVED ARSENIC (AS) (UG/L) (01000)	DISSOLVED BORON (B) (UG/L) (01020)	DISSOLVED CADMIUM (CD) (UG/L) (01025)	DISSOLVED CHROMIUM (CR) (UG/L) (01030)
OCT 20...	0	286	86	.8	35	483	--	160	--	--
JAN 17...	0	331	88	.9	48	552	9	150	2	0
APR 25...	0	270	98	1.0	37	488	--	140	--	--
JUL 18...	0	220	75	.8	36	390	11	130	6	0

DATE	DISSOLVED COPPER (CU) (UG/L) (01040)	DISSOLVED IRON (FE) (UG/L) (01046)	DISSOLVED LEAD (PB) (UG/L) (01049)	DISSOLVED MANGANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUSPENDED MERCURY (HG) (UG/L) (71895)	DISSOLVED MERCURY (HG) (UG/L) (71890)	DISSOLVED SELENIUM (SE) (UG/L) (01145)	DISSOLVED SILVER (AG) (UG/L) (01075)	DISSOLVED ZINC (ZN) (UG/L) (01090)
OCT 20...	--	20	--	10	--	--	--	--	--	--
JAN 17...	1	20	6	40	.1	.1	.0	4	0	20
APR 25...	--	40	--	10	--	--	--	--	--	--
JUL 18...	4	30	20	20	.1	.0	.1	5	0	20

06846500 BEAVER CREEK AT CEDAR BLUFFS, KS

LOCATION.--Lat 39°59'06", long 100°33'35", in NW1/4NE1/4 sec.10, T.1 S., R.29 W., Decatur County, Hydrologic Unit 10250014, on right bank at downstream side of bridge on U.S. Highway 83, 0.2 mi (0.3 km) north of Cedar Bluffs, 1.0 mi (1.6 km) south of Kansas-Nebraska State line, and at mi 107.4 (172.8 km).

DRAINAGE AREA.--1,618 mi² (4,191 km²), of which 294 mi² (761 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1510: 1947, 1950-51.

GAGE.--Water-stage recorder. Datum of gage is 2,520.33 ft (768.197 m) above mean sea level. Prior to Aug. 19, 1971, at site 0.1 mi (0.2 km) upstream at same datum. Aug. 19, 1971, to July 12, 1972, at site 0.8 mi (1.3 km) downstream at datum 5.00 ft (1.524 m) lower.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--32 years, 20.6 ft³/s (0.583 m³/s), 14,920 acre-ft/yr (18.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,940 ft³/s (225 m³/s) June 11, 1960, gage height, 18.71 ft (5.703 m); no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1944 reached a stage of 18.16 ft (5.535 m), from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 330 ft³/s (9.35 m³/s) Sept. 2, gage height, 8.62 ft (2.627 m), no other peak above base of 300 ft³/s (8.50 m³/s); no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.58
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	267
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	290
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	202
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	90
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	45
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	20
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	11
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.3
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.6
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.2
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.4
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.36
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20
16	.00	.00	.00	.00	.00	.00	.00	.00	.42	.00	.00	.15
17	.00	.00	.00	.00	.00	.00	.00	.00	1.7	.00	.00	.12
18	.00	.00	.00	.00	.00	.00	.00	.00	.42	.00	.00	.06
19	.00	.00	.00	.00	.00	.00	.00	.00	.18	.00	.00	.03
20	.00	.00	.00	.00	.00	.00	.00	.04	.02	.00	.00	.01
21	.00	.00	.00	.00	.00	.00	.00	31	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	45	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	25	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	5.5	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	1.4	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.48	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.22	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.12	.00	.50	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.03	.00	.18	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	108.79	2.74	.68	.00	944.01
MEAN	.000	.000	.000	.000	.000	.000	.000	3.51	.091	.022	.000	31.5
MAX	.00	.00	.00	.00	.00	.00	.00	45	1.7	.50	.00	290
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	216	5.4	1.3	.00	1870

CAL YR 1976 TOTAL 306.89 MEAN .84 MAX 117 MIN .00 AC-FT 609
WTR YR 1977 TOTAL 1056.22 MEAN 2.89 MAX 290 MIN .00 AC-FT 2100

06847000 BEAVER CREEK NEAR BEAVER CITY, NE

LOCATION.--Lat 40°07'12", long 99°53'35", in SW1/4SW1/4 sec.23, T.2 N., R.23 W., Furnas County, Hydrologic Unit 10250014, on left bank 400 ft (122 m) downstream from bridge on U.S. Highway 283, 3.5 mi (5.6 km) west of Beaver City, and at mi 24.7 (39.7 km).

DRAINAGE AREA.--1,950 mi² (5,050 km²), approximately, of which about 1,650 mi² (4,270 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1936 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1340: 1937-38(M), 1939, 1940-41(M), 1943(M). WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,162.96 ft (659.270 m) above mean sea level. Prior to Aug. 13, 1947, nonrecording gages and Aug. 13, 1947, to Nov. 14, 1957, water-stage recorder, at site 400 ft (120 m) upstream at datum 2.0 ft (0.61 m) higher. Nov. 15, 1957, to Sept. 22, 1958, at site 3.6 mi (5.8 km) upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--41 years, 26.6 ft³/s (0.753 m³/s), 19,270 acre-ft/yr (23.8 hm³/yr); median of yearly mean discharges, 20 ft³/s (0.566 m³/s), 14,500 acre-ft/yr (17.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,800 ft³/s (108 m³/s) July 19, 1944, gage height, 13.8 ft (4.21 m), from floodmark, site and datum then in use; no flow at times in 1937-40, 1946, 1953-57, 1959, 1969-74, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 97 ft³/s (2.75 m³/s) May 24, gage height, 4.80 ft (1.463 m), no peak above base of 400 ft³/s (11.3 m³/s); minimum daily, 0.02 ft³/s (0.0005 m³/s) Oct. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.12	.09	.10	.12	.39	.69	.47	6.2	.61	.31	.46
2	.04	.15	.10	.10	.14	.37	.66	1.0	3.5	.59	.36	.46
3	.02	.18	.11	.10	.14	.24	.70	.90	3.2	.54	.46	.83
4	.05	.18	.11	.10	.14	.20	.75	.83	2.3	.42	.46	.90
5	.07	.18	.12	.10	.14	.24	.75	.65	1.9	.33	.41	.65
6	.14	.20	.14	.10	.14	.26	.80	.65	1.6	.29	.41	.50
7	.25	.20	.14	.11	.14	.31	.70	.55	1.5	.31	.31	45
8	.14	.21	.14	.11	.15	.36	.65	.55	1.5	.37	.31	73
9	.11	.26	.14	.09	.17	.36	.60	.46	1.4	.35	.21	41
10	.10	.26	.14	.07	.17	1.5	.60	.41	1.3	.99	.17	28
11	.11	.25	.14	.07	.18	9.0	.58	.41	1.2	.67	.17	21
12	.10	.20	.15	.07	.20	3.5	.55	.74	1.3	.49	.13	15
13	.12	.17	.15	.07	.22	1.8	.28	1.0	1.5	.42	.13	10
14	.11	.17	.16	.07	.24	1.1	.31	.89	1.5	.39	.13	7.1
15	.09	.18	.17	.07	.22	.90	.28	1.0	1.3	.48	.15	5.4
16	.12	.19	.18	.07	.25	.80	.28	14	1.2	.40	.19	3.4
17	.13	.20	.18	.07	.27	.70	.26	8.3	1.2	.32	.26	1.8
18	.14	.21	.19	.07	.30	.66	.43	4.6	1.2	.23	.19	1.2
19	.14	.21	.19	.09	.36	.66	.49	2.9	1.1	.18	.17	.77
20	.13	.20	.14	.11	.47	.80	1.1	2.0	1.1	.17	.15	.50
21	.13	.16	.12	.11	.60	1.0	.58	3.8	1.1	.19	.10	.31
22	.13	.14	.11	.12	.65	.95	.51	31	1.2	.31	.13	.19
23	.11	.11	.12	.13	.70	.84	.51	40	1.1	.41	.15	.13
24	.09	.12	.12	.14	.67	.69	.46	61	1.0	.31	.17	.10
25	.07	.11	.13	.15	.63	.59	.53	66	.95	.26	3.1	.10
26	.06	.12	.15	.16	.51	.54	.52	28	.89	.31	1.0	.10
27	.06	.12	.18	.17	.40	.54	.63	25	.82	.31	4.8	.10
28	.08	.08	.17	.17	.37	.55	.54	29	.76	.31	3.4	.15
29	.09	.08	.14	.15	---	.56	.60	14	.67	.26	1.3	.17
30	.12	.08	.12	.12	---	.55	.81	9.8	.64	.21	.70	.15
31	.12	---	.09	.11	---	.80	---	6.4	---	.21	.50	---
TOTAL	3.21	5.04	4.33	3.27	8.69	31.76	17.15	356.31	46.13	11.64	20.43	258.47
MEAN	.10	.17	.14	.11	.31	1.02	.57	11.5	1.54	.38	.66	8.62
MAX	.25	.26	.19	.17	.70	9.0	1.1	66	6.2	.99	4.8	73
MIN	.02	.08	.09	.07	.12	.20	.26	.41	.64	.17	.10	.10
AC-FT	6.4	10.0	8.6	6.5	17	63	34	707	91	23	41	513

CAL YR 1976 TOTAL 299.20 MEAN .82 MAX 19 MIN .00 AC-FT 593
WTR YR 1977 TOTAL 766.43 MEAN 2.10 MAX 73 MIN .02 AC-FT 1520

06847500 SAPPA CREEK NEAR STAMFORD, NE

LOCATION.--Lat 40°07'53", long 99°33'15", in NW1/4NW1/4 sec.23, T.2 N., R.20 W., Harlan County, Hydrologic Unit 10250011, on left bank 40 ft (12 m) south of Burlington Northern Inc. track, 500 ft (152 m) downstream from bridge on county highway, 2 mi (3 km) east of Stamford, and 5.5 mi (8.8 km) upstream from mouth.

DRAINAGE AREA.--3,740 mi² (9,690 km²), approximately, of which about 3,280 mi² (8,500 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1919: 1960. WSP 2119: Drainage area. WDR NE-71-1: Calendar year totals.

GAGE.--Water-stage recorder. Datum of gage is 1,981.31 ft (603.903 m) above mean sea level.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--32 years, 66.5 ft³/s (1.883 m³/s), 48,180 acre-ft/yr (59.4 hm³/yr); median of yearly mean discharges, 44 ft³/s (1.246 m³/s), 31,900 acre-ft/yr (39.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,400 ft³/s (1,230 m³/s) June 24, 1966, gage height, 22.13 ft (6.745 m), from floodmark, from contracted opening and flow-over-road measurement of peak flow; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,280 ft³/s (36.2 m³/s) Sept. 3 at 1800, gage height, 12.25 ft (3.734 m), no other peak above base of 1,000 ft³/s (28.3 m³/s); no flow for many days.

REVISIONS.--The 1970 calendar year totals have been revised as shown in the following table. They supercede figures published in the report for 1971.

CAL YR 1970 TOTAL 5,796.71 MEAN 15.9 AC-FT 11,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	.00	.00	.00	.00	.00	.00	1.1	69	.00	.00	47
2	12	.00	.00	.00	.00	.00	.00	9.8	58	.00	.00	31
3	5.3	.00	.00	.00	.00	.00	.00	7.1	42	.00	.00	729
4	11	.00	.00	.00	.00	.00	.00	56	30	.00	.00	293
5	5.7	.00	.00	.00	.00	.00	.00	41	23	.00	.00	29
6	1.8	.00	.00	.00	.00	.00	.00	25	19	.00	.00	14
7	.11	.00	.00	.00	.00	.00	.00	12	19	.00	.00	9.8
8	.00	.00	.00	.00	.00	.00	.00	9.0	17	.00	.39	32
9	.00	.00	.00	.00	.00	.00	.00	5.9	14	.00	.00	31
10	.00	.00	.00	.00	.00	.00	.00	3.8	11	.00	.00	29
11	.00	.00	.00	.00	.00	.00	.00	18	8.9	.00	.00	46
12	.00	.00	.00	.00	.00	.42	.00	18	5.4	.00	.00	35
13	.00	.00	.00	.00	.00	.00	.00	7.1	1.7	.00	.00	22
14	.00	.00	.00	.00	.00	.00	.00	3.6	.19	.00	.00	15
15	.00	.00	.00	.00	.00	.00	.00	2.5	.02	.00	.00	11
16	.00	.00	.00	.00	.00	.00	.00	1.8	33	.00	.00	8.4
17	.00	.00	.00	.00	.00	.00	.00	1.5	13	.00	.00	6.3
18	.00	.00	.00	.00	.00	.00	.00	1.4	2.0	.00	.00	4.6
19	.00	.00	.00	.00	.00	.00	.00	4.9	.00	.00	.00	3.2
20	.00	.00	.00	.00	.00	.00	5.2	67	.00	.00	.85	2.6
21	.00	.00	.00	.00	.00	.00	19	68	.00	.00	6.3	1.3
22	.00	.00	.00	.00	.00	.00	45	40	.00	.00	4.0	3.3
23	.00	.00	.00	.00	.00	.00	39	35	1.0	.00	2.7	2.4
24	.00	.00	.00	.00	.00	.00	17	57	15	.00	.08	.53
25	.00	.00	.00	.00	.00	.00	12	53	17	.00	.00	.34
26	.00	.00	.00	.00	.00	.00	7.0	194	7.6	.00	1.6	.16
27	.00	.00	.00	.00	.00	.00	4.3	155	3.4	.00	2.5	.00
28	.00	.00	.00	.00	.00	.00	3.1	85	.51	.00	43	.00
29	.00	.00	.00	.00	---	.00	1.9	57	.00	.00	138	.00
30	.00	.00	.00	.00	---	.00	2.4	96	.00	.00	82	.00
31	.00	---	.00	.00	---	.00	---	109	---	.00	77	---
TOTAL	65.91	.00	.00	.00	.00	.42	155.90	1245.5	410.72	.00	358.42	1406.93
MEAN	2.13	.000	.000	.000	.000	.014	5.20	40.2	13.7	.000	11.6	46.9
MAX	30	.00	.00	.00	.00	.42	45	194	69	.00	138	729
MIN	.00	.00	.00	.00	.00	.00	.00	1.1	.00	.00	.00	.00
AC-FT	131	.00	.00	.00	.00	.8	309	2470	815	.00	711	2790

CAL YR 1976 TOTAL 1503.15 MEAN 4.11 MAX 59 MIN .00 AC-FT 2980
WTR YR 1977 TOTAL 3643.80 MEAN 9.98 MAX 729 MIN .00 AC-FT 7230

06848500 PRAIRIE DOG CREEK NEAR WOODRUFF, KS

LOCATION.--Lat 39°59'09", long 99°28'39", in NW1/4NW1/4 sec.9, T.1 S., R.19 W., Phillips County, Hydrologic Unit 10250015, on left bank at downstream side of bridge on U.S. Highway 383, 1 mi (2 km) south of Kansas-Nebraska State line, 2.5 mi (4.0 km) west of Woodruff, and at mi 26.5 (42.6 km).

DRAINAGE AREA.--1,007 mi² (2,608 km²).

PERIOD OF RECORD.--October 1928 to September 1932, October 1944 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 2,016.20 ft (614.538 m) above mean sea level. See WSP 1919 for history of changes prior to Oct. 7, 1955.

REMARKS.--Records fair except those for winter periods, which are poor. Flow regulated to some extent since 1964 by Norton Reservoir (station 06847950) 48.4 mi (77.9 km) upstream and by irrigation development above station.

AVERAGE DISCHARGE.--37 years (water years 1929-32, 1945-77), 39.7 ft³/s (1.124 m³/s), 28,760 acre-ft/yr (35.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft³/s (425 m³/s) June 23, 1947, gage height, 21.04 ft (6.413 m), site and datum then in use, from rating curve extended above 6,500 ft³/s (184 m³/s) on basis of contracted-opening measurement of 11,300 ft³/s (320 m³/s); no flow at times in 1945, 1948, 1950, 1954-61, 1963-66, 1971, 1972, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharge, above regulated base of 400 ft³/s (11.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 3	0600	492	13.9	8.92	2.719
Sept. 3	1800	*4580	130	23.48	7.157

Minimum daily discharge, 0.02 ft³/s (0.0005 m³/s) Sept. 26,27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.67	.20	.45	.70	.40	23	14	1.5	2.5	.15	.05	.09
2	.17	.16	.48	.60	.37	21	17	3.3	2.2	.13	.08	243
3	.11	.12	.52	.50	.36	19	15	310	2.0	.12	.07	3290
4	.06	.14	.60	.45	.36	17	14	58	1.9	.09	.11	1700
5	.05	.12	.65	.40	.38	15	16	13	1.8	.04	102	139
6	.05	.12	.72	.36	.39	14	15	6.1	1.8	.04	27	60
7	.14	.11	.80	.34	.40	12	13	4.0	2.2	.03	3.1	31
8	.11	.10	.90	.31	.45	11	20	3.2	1.8	.03	.66	15
9	.11	.11	1.0	.28	.48	9.8	18	2.7	1.6	.04	.31	8.2
10	.11	.11	1.1	.27	.52	5.9	12	2.4	1.5	.15	.29	4.6
11	.06	.12	1.0	.25	.60	6.8	10	2.3	1.5	.06	.04	2.9
12	.18	.17	.92	.25	.70	6.3	12	2.2	1.9	2.1	.03	1.8
13	.16	.18	1.0	.25	.80	6.7	8.8	2.1	2.2	.26	.03	1.0
14	.17	.20	1.1	.25	1.1	11	.85	2.0	1.2	.06	.03	.51
15	.17	.42	1.3	.25	1.5	5.9	.25	2.0	2.3	2.6	.05	.10
16	.14	.42	1.4	.25	2.0	3.1	1.1	2.0	2.2	1.1	.97	.10
17	.14	.42	1.5	.25	2.5	2.2	1.7	1.8	1.6	.75	1.2	2.2
18	.16	.53	1.7	.27	3.0	1.8	1.9	2.0	1.2	.77	.57	8.1
19	.16	.52	1.6	.29	4.0	2.5	5.1	2.7	.39	1.3	.11	3.2
20	.42	.56	1.4	.31	5.0	3.0	17	3.2	.31	2.1	.05	1.1
21	.75	.58	1.3	.35	6.0	3.9	11	5.9	.13	4.1	.04	.20
22	.64	.63	1.2	.40	8.0	6.1	12	7.8	.41	4.2	.04	.06
23	.53	1.3	1.1	.43	11	7.1	13	10	.78	1.1	.07	.03
24	.68	1.5	1.2	.47	15	7.8	6.0	6.8	1.9	.46	.07	.03
25	3.3	1.6	1.3	.50	17	8.8	3.4	4.4	7.0	.11	14	.03
26	2.8	1.0	1.4	.56	20	9.6	2.2	3.0	3.5	.07	13	.02
27	1.6	.70	1.5	.60	22	9.5	1.5	3.0	6.1	.06	9.4	.03
28	.97	.50	1.4	.66	23	10	1.2	5.3	4.1	.05	4.4	.07
29	.86	.45	1.2	.58	---	11	1.3	4.9	2.6	.06	2.1	.11
30	.64	.45	.96	.50	---	12	1.4	3.8	.80	.05	.66	.14
31	.42	---	.80	.45	---	13	---	3.0	---	.03	.15	---
TOTAL	16.53	13.54	33.50	12.33	147.31	295.8	265.70	484.4	61.42	22.21	180.68	5512.62
MEAN	.53	.45	1.08	.40	5.26	9.54	8.86	15.6	2.05	.72	5.83	184
MAX	3.3	1.6	1.7	.70	23	23	20	310	7.0	4.2	102	3290
MIN	.05	.10	.45	.25	.36	1.8	.25	1.5	.13	.03	.03	.02
AC-FT	33	27	66	24	292	587	527	961	122	44	358	10930

CAL YR 1976 TOTAL 1741.90 MEAN 4.76 MAX 217 MIN .00 AC-FT 3460
WTR YR 1977 TOTAL 7046.04 MEAN 19.3 MAX 3290 MIN .02 AC-FT 13980

06849000 HARLAN COUNTY LAKE NEAR REPUBLICAN CITY, NE

LOCATION.--Lat 40°04'10", long 99°12'30", in sec.11, T.1 N., R.17 W., Harlan County, Hydrologic Unit 10250009, at left end of spillway on upstream side of Harlan County Dam on Republican River, 2 mi (3 km) southeast of Republican City and 8 mi (13 km) southeast of Alma.

DRAINAGE AREA.--20,750 mi^2 (53,700 km^2), approximately, of which about 13,530 mi^2 (35,000 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--November 1952 to current year. Prior to October 1965 published as Harlan County Reservoir near Republican City.

GAGE.--Water-stage recorder. Gage is referred to mean sea level.

REMARKS (REVISED).--Reservoir is formed by earthfill dam with gravity-type concrete spillway section; storage began Nov. 14, 1952. Capacity, 319,800 acre-ft (0.394 km^3) between elevations 1,885.0 ft (575 m), sill of outlet gates, and 1,946.0 ft (593 m), top of storage pool. Top of flood-control pool at elevation 1,973.5 ft (602 m), capacity, 828,800 acre-ft (1.02 km^3). Top of superstorage flood-control pool at elevation 1,975.5 ft (602 m), capacity, 875,600 acre-ft (1.08 km^3). Figures given herein represent total contents. Water used for irrigation in the Bostwick irrigation project.

COOPERATION.--Capacity table furnished by Corps of Engineers (revised October 1, 1974).

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 497,700 acre-ft (0.614 km^3) Apr. 6, 1960, elevation, 1,955.67 ft (596.088 m); minimum since operation of reservoir began, 110,300 acre-ft (0.136 km^3) Oct. 22 to Nov. 6, 1953, elevation, 1,922.00 ft (585.826 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 268,100 acre-ft (0.331 km^3) June 10, elevation, 1,941.98 ft (591.916 m); minimum, 166,600 acre-ft (0.205 km^3) Oct. 6, elevation, 1,932.05 ft (588.889 m).

Capacity table (elevation, in feet,
and contents, in acre-feet)

1,930	150,000	1,945	306,400
1,935	192,800	1,950	376,000
1,940	248,700		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	167000	168700	172300	177000	181200	190500	205900	226100	263900	256900	188000	182100
2	167000	168800	172300	177100	181300	191100	206300	227800	265000	255200	186400	183400
3	167000	168900	172400	177200	181400	191700	207700	228600	265800	253500	184500	188500
4	167000	168900	172400	177700	181600	191900	208500	230100	266600	251400	184300	194000
5	166900	169000	172700	177700	181800	192000	208600	230900	266800	249000	183600	197100
6	167600	169100	172600	177700	182000	192300	209000	231500	267200	246600	183500	197800
7	167600	169200	172800	178000	182200	192500	209500	232000	267500	243800	183200	198400
8	167600	169400	172900	178000	182500	192900	210000	232500	267700	241400	183000	198600
9	167700	169400	173100	178100	182800	193200	210400	232900	267800	238500	182900	198600
10	167800	169400	173200	178300	183000	193700	210900	233300	267700	236700	182100	198600
11	167900	169500	173300	178400	183400	195000	211100	233400	267100	234700	181700	198800
12	167800	169600	173500	178500	183700	195400	212100	233900	266400	232400	181100	199400
13	167900	169600	173600	178500	184300	195700	212300	234200	266300	229800	180100	199500
14	167900	169700	173900	178700	184500	196400	212800	234400	266000	227600	179300	199600
15	167900	169800	174000	178800	185100	196600	213200	234600	265800	225600	178900	199500
16	167900	169900	174300	178900	185600	196800	213600	235400	265600	223200	178700	199700
17	167700	170100	174500	179100	186100	197600	214300	236200	265500	220900	178400	200000
18	167600	170300	174900	179100	186700	197700	216000	237000	265100	218400	178000	199800
19	167600	170700	175300	179300	187100	198900	217400	237900	264700	215700	177900	199800
20	167600	171000	175300	179500	187400	199400	219200	238600	263800	213300	177600	199800
21	167600	171000	175300	179500	187700	200000	220000	240200	263500	210900	177400	199800
22	167600	171100	175500	179700	188200	200400	221200	242200	263500	208400	177200	199800
23	167800	171200	175600	179800	188700	200800	222100	247400	263500	206200	177000	199800
24	167800	171400	175800	179900	189000	201200	222600	251800	263800	203600	176700	199600
25	167800	171600	176100	180000	189100	201600	223200	254200	263300	202600	178100	199600
26	167800	172200	176200	180100	189500	202300	223900	256000	262700	200300	178200	199500
27	168100	172200	176600	180300	190000	202700	224500	257800	261800	198200	179400	199200
28	168100	172100	176700	180400	190300	204200	224600	259200	260800	196100	180400	199300
29	168200	172100	176800	180600	---	204800	225300	260300	259700	193900	180800	199200
30	168500	172200	176900	180700	---	205100	225600	261600	258600	191800	181400	199900
31	168500	---	176900	181000	---	205200	---	262400	---	189700	181700	---
MAX	168500	172200	176900	181000	190300	205200	225600	262400	267800	256900	188000	200000
MIN	166900	168700	172300	177000	181200	150500	205900	226100	258600	189700	176700	182100
†	1932.28	1932.73	1933.27	1933.73	1934.73	1936.26	1938.26	1941.51	1941.19	1934.67	1933.81	1935.73
‡	+1500	+3700	+4700	+4100	+9300	+14900	+20400	+36800	-3800	-68900	-8000	+18200

CAL YR 1976 MAX 338900 MIN 162600 ‡ -90300
WTR YR 1977 MAX 267800 MIN 166900 ‡ +32900

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

06849500 REPUBLICAN RIVER BELOW HARLAN COUNTY DAM, NE

LOCATION.--Lat 40°04'45", long 99°10'05", in SW1/4 sec.6, T.1 N., R.16 W., Franklin County, Hydrologic Unit 10250016, on left bank 1.4 mi (2.3 km) west of Naponee, 1.4 mi (2.3 km) upstream from Turkey Creek, and 2.8 mi (4.5 km) downstream from Harlan County Dam.

DRAINAGE AREA.--20,760 mi^2 (53,800 km^2), approximately, of which about 13,550 mi^2 (35,100 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--December 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,863.38 ft (567.958 m) above mean sea level (Corps of Engineers bench mark).

REMARKS.--Records fair except those for winter period, which are poor. Flow completely regulated by Harlan County Lake (station 06849000) and partially regulated by six upstream reservoirs.

AVERAGE DISCHARGE.--24 years (1953-77), 293 ft^3/s (8.298 m^3/s), 212,300 acre-ft/yr (0.262 km^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,320 ft^3/s (122 m^3/s) June 25, 1957, gage height, 8.65 ft (2.637 m); minimum daily, 1.5 ft^3/s (0.042 m^3/s) Apr. 28, 29, 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Maximum flood since at least 1826 occurred June 1, 1935, discharge, about 260,000 ft^3/s (7,360 m^3/s), from slope-area measurement near Bloomington.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,080 ft^3/s (30.6 m^3/s) Sept. 3, gage height, 4.03 ft (1.228 m); minimum daily, 1.6 ft^3/s (0.045 m^3/s) Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	7.5	2.0	2.5	3.0	2.5	4.5	5.5	5.0	330	800	14
2	10	7.6	2.2	3.0	3.2	3.7	6.2	11	4.9	380	694	15
3	11	7.3	2.2	3.7	3.0	4.5	7.8	34	9.5	570	689	401
4	10	6.7	2.2	3.7	2.5	2.8	9.7	8.7	7.5	570	623	49
5	10	7.0	2.2	3.5	2.5	2.5	6.7	5.7	3.4	700	360	23
6	13	8.1	2.2	3.5	2.3	2.3	5.7	4.3	3.0	952	211	19
7	15	7.9	2.0	4.0	2.2	2.3	4.9	4.3	56	952	205	17
8	13	8.2	2.0	3.8	2.0	2.3	4.9	4.3	122	952	246	16
9	12	9.3	2.0	3.0	2.0	3.1	4.9	4.5	127	952	279	17
10	11	9.1	2.2	3.0	1.8	2.5	5.2	6.1	240	952	275	15
11	11	9.6	2.2	3.2	1.8	5.8	5.5	4.9	401	952	278	14
12	12	9.3	2.2	3.2	1.6	5.2	7.0	4.9	401	952	275	16
13	11	9.3	2.2	3.6	1.8	4.7	9.9	4.3	235	952	271	14
14	11	9.3	2.2	4.0	1.8	4.3	9.7	4.4	130	952	272	13
15	11	9.3	2.2	3.5	1.8	3.7	8.2	4.3	129	952	233	13
16	11	8.5	2.2	3.0	1.8	3.7	8.1	4.2	136	952	154	13
17	11	9.0	2.3	3.2	1.8	3.9	7.3	3.7	154	952	70	14
18	10	8.5	2.3	3.2	1.8	3.7	8.2	4.2	165	958	23	14
19	10	9.8	2.3	3.5	1.8	6.7	9.3	12	183	963	20	14
20	8.6	8.5	2.5	4.0	2.0	5.4	110	6.8	184	970	19	14
21	8.6	8.5	2.5	4.0	2.2	4.9	25	9.9	200	974	19	14
22	7.9	9.3	2.5	4.2	2.2	4.8	11	15	203	974	20	14
23	7.3	10	2.5	4.2	2.2	4.3	8.0	9.1	176	974	19	14
24	7.0	12	3.1	4.2	2.2	3.1	6.1	6.6	180	974	19	13
25	6.1	13	3.1	4.2	2.2	2.2	6.0	5.7	180	994	19	13
26	6.7	11	3.1	4.2	2.2	2.3	5.5	7.9	180	1000	17	13
27	6.1	12	3.1	4.2	2.3	2.3	4.9	6.7	180	1000	16	13
28	6.1	9.0	3.1	4.2	2.3	7.3	5.4	6.5	180	1000	15	12
29	6.0	5.0	3.7	4.2	---	4.5	5.5	5.5	280	1010	14	12
30	6.9	2.0	2.0	3.5	---	3.6	5.5	7.0	280	900	14	12
31	7.9	---	2.0	3.0	---	3.1	---	6.8	---	850	13	---
TOTAL	299.2	261.6	74.5	112.2	60.3	118.0	326.6	228.8	4735.3	27515	6182	855
MEAN	9.65	8.72	2.40	3.62	2.15	3.81	10.9	7.38	158	888	199	28.5
MAX	15	13	3.7	4.2	3.2	7.3	110	34	401	1010	800	401
MIN	6.0	2.0	2.0	2.5	1.6	2.2	4.5	3.7	3.0	330	13	12
AC-FT	593	519	148	223	120	234	648	454	9390	54580	12260	1700

CAL YR 1976 TOTAL 68294.0 MEAN 187 MAX 963 MIN 2.0 AC-FT 135500
WTR YR 1977 TOTAL 40768.5 MEAN 112 MAX 1010 MIN 1.6 AC-FT 80860

06852500 COURTLAND CANAL AT NEBRASKA-KANSAS STATE LINE

LOCATION.--Lat 40°00'15", long 98°07'55", in SW1/4SE1/4 sec.32, T.1 N., R.7 W., Nuckolls County, Ne., Hydrologic Unit 10250016, on left bank 0.2 mi (0.3 km) upstream from Nebraska-Kansas State line and 3.5 mi (5.6 km) southwest of Superior, Ne.

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder and concrete Parshall flume. Datum of gage is 1,612.46 ft (491.478 m) above mean sea level.

REMARKS.--Records good. Canal diverts from Republican River at Courtland diversion dam in sec.7, T.1 N., R.9 W. Water is used for irrigation in Nebraska and Kansas; figures published herein represent that portion which flows into Kansas.

AVERAGE DISCHARGE.--23 years, 78.2 ft³/s (2.215 m³/s), 56,660 acre-ft/yr (69.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 781 ft³/s (22.1 m³/s) Sept. 2, 1973, gage height, 5.05 ft (1.539 m); no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 642 ft³/s (18.2 m³/s) July 13, gage height, 4.42 ft (1.347 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	85	30	.00	.00	.00	88	107	63	135	603	.00
2	85	83	23	.00	.00	.00	85	108	55	130	553	.00
3	82	74	10	.00	.00	.00	85	115	50	150	496	.00
4	96	73	3.2	.00	.00	.00	85	150	61	214	514	.00
5	94	72	.00	.00	.00	.00	86	43	61	262	532	.00
6	76	68	.00	.00	.00	.00	90	18	48	307	508	.00
7	80	68	.00	.00	.00	.00	100	31	34	418	510	.00
8	88	68	.00	.00	.00	.00	95	32	37	534	384	.00
9	89	68	.00	.00	.00	.00	90	34	41	560	325	.00
10	88	67	.00	.00	.00	.00	89	33	60	572	360	.00
11	88	66	.00	.00	.00	.00	83	32	95	592	364	.00
12	85	64	.00	.00	.00	.00	80	32	98	625	348	.00
13	74	55	.00	.00	.00	.00	80	31	106	640	340	.00
14	67	47	.00	.00	.00	.00	109	32	101	634	325	.00
15	65	58	.00	.00	.00	.00	98	32	101	638	298	.00
16	63	65	.00	.00	.00	.00	84	32	116	631	334	.00
17	60	67	.00	.00	.00	.00	80	28	128	596	310	.00
18	60	64	.00	.00	.00	.00	77	15	128	625	246	.00
19	58	62	.00	.00	.00	.00	76	25	131	620	185	.00
20	58	62	.00	.00	.00	.00	85	30	124	605	156	.00
21	60	61	.00	.00	.00	.00	100	32	136	592	149	.00
22	82	61	.00	.00	.00	9.5	102	30	142	594	127	.00
23	85	84	.00	.00	.00	107	110	57	142	598	82	.00
24	84	84	.00	.00	.00	128	110	80	181	596	45	.00
25	83	77	.00	.00	.00	85	109	73	204	607	25	.00
26	82	68	.00	.00	.00	72	109	72	200	614	5.1	.00
27	82	58	.00	.00	.00	76	108	73	174	629	.00	.00
28	82	50	.00	.00	.00	77	108	74	128	629	12	.00
29	84	45	.00	.00	---	77	107	73	102	620	20	.00
30	86	38	.00	.00	---	81	107	73	121	612	1.5	.00
31	85	---	.00	.00	---	86	---	70	---	607	.00	---
TOTAL	2437	1962	66.20	.00	.00	798.50	2815	1667	3168	16196	8157.60	.00
MEAN	78.6	65.4	2.14	.000	.000	25.8	93.8	53.8	106	522	263	.000
MAX	96	85	30	.00	.00	128	110	150	204	640	603	.00
MIN	58	38	.00	.00	.00	.00	76	15	34	130	.00	.00
AC-FT	4830	3890	131	.00	.00	1580	5580	3310	6280	32120	16180	.00

CAL YR 1976 TOTAL 54902.20 MEAN 150 MAX 671 MIN .00 AC-FT 108900
WTR YR 1977 TOTAL 37265.30 MEAN 102 MAX 640 MIN .00 AC-FT 73920

06853000 REPUBLICAN RIVER NEAR GUIDE ROCK, NE

LOCATION.--Lat 40°04'05", long 98°22'25", in SW1/4NE1/4 sec.7, T.1 N., R.9 W., Webster County, Hydrologic Unit 10250016, on left bank 300 ft (91 m) upstream from Willow Creek, 0.2 mi (0.3 km) downstream from Courtland diversion dam, and 2 mi (3 km) southwest of Guide Rock.

DRAINAGE AREA.--22,040 mi^2 (57,100 km^2), approximately, of which about 14,550 mi^2 (37,700 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1950 to current year.

REVISED RECORDS.-- WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,624.13 ft (495.035 m) above mean sea level. Prior to Oct. 1, 1959, at datum 5.00 ft (1.524 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station, by regulation of upstream reservoirs, and since Nov. 14, 1952, by storage in Harlan County Lake (station 06849000).

AVERAGE DISCHARGE.--27 years, 369 ft^3/s (10.45 m^3/s), 267,300 acre-ft/yr (0.330 km^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,200 ft^3/s (827 m^3/s) June 16, 1957, gage height, 20.73 ft (6.319 m), present datum; minimum daily, 0.1 ft^3/s (0.003 m^3/s) May 26, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Maximum flood since at least 1826 occurred June 1 or 2, 1935, discharge, about 250,000 ft^3/s (7,080 m^3/s), from slope-area measurements near Bloomington and Hardy.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,480 ft^3/s (98.6 m^3/s) Sept. 12, gage height, 14.31 ft (4.362 m); minimum daily, 0.38 ft^3/s (0.011 m^3/s) Oct. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	.54	1.0	70	66	102	14	22	15	40	90	132
2	3.3	4.0	20	60	70	109	13	25	12	30	130	1660
3	2.8	4.3	55	63	74	106	15	38	11	20	91	1110
4	43	4.1	90	64	78	98	23	65	8.1	25	406	1120
5	4.8	8.7	106	64	80	92	14	149	5.0	10	1050	573
6	11	16	104	66	86	96	11	102	6.2	16	498	283
7	35	15	109	70	94	94	11	94	4.7	95	32	217
8	32	16	116	60	105	95	10	88	5.0	57	11	184
9	20	19	123	52	109	94	7.1	138	5.1	34	2.5	165
10	9.3	17	120	48	111	91	5.3	155	17	71	69	168
11	5.1	13	115	50	117	115	7.8	138	17	119	9.2	139
12	5.6	7.0	110	50	124	112	7.9	110	101	105	1.7	2500
13	16	4.5	100	55	132	111	106	88	307	84	1.2	1870
14	18	4.0	100	60	138	110	28	83	261	59	1.3	501
15	17	16	105	54	129	108	25	75	130	213	2.5	287
16	17	22	110	48	132	100	24	75	56	255	83	218
17	22	30	110	49	129	98	21	35	40	211	80	186
18	28	36	100	49	132	73	20	41	49	153	87	163
19	26	29	85	55	120	77	20	85	51	85	20	184
20	25	25	61	70	110	90	197	80	60	49	2.8	134
21	15	23	62	70	106	56	653	99	194	54	304	125
22	.80	12	65	75	108	20	260	101	291	81	281	113
23	.80	17	70	80	106	17	106	79	164	79	159	112
24	.72	24	70	80	103	14	59	53	115	80	175	112
25	.63	23	75	80	103	13	40	34	100	175	168	107
26	.78	21	90	80	101	12	36	26	95	245	315	108
27	.59	15	100	90	100	13	35	28	90	224	467	110
28	.89	2.0	95	85	100	22	31	33	80	182	251	107
29	.38	1.0	90	75	---	20	26	24	50	153	173	118
30	.69	1.0	86	60	---	22	25	21	60	91	187	117
31	.58	---	80	62	---	15	---	20	---	69	136	---
TOTAL	368.56	430.14	2723.0	1994	2963	2195	1851.1	2200	2400.1	3164	5140.2	12859
MEAN	11.9	14.3	87.8	64.3	106	70.8	61.7	71.0	80.0	102	166	429
MAX	43	36	123	90	138	115	653	155	307	255	1050	2500
MIN	.38	.54	1.0	48	66	12	5.3	20	4.7	10	1.2	107
AC-FT	731	853	5400	3960	5880	4350	3670	4360	4760	6280	10200	25510

CAL YR 1976 TOTAL 31824.75 MEAN 87.0 MAX 825 MIN .38 AC-FT 63120
WTR YR 1977 TOTAL 38288.10 MEAN 105 MAX 2500 MIN .38 AC-FT 75940

06853000 REPUBLICAN RIVER NEAR GUIDE ROCK, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1962 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)
OCT										
20...	1315	25	639	7.9	6.0	3	13.3	2.8	62	89
NOV										
22...	1330	8.0	740	7.9	1.1	7	13.6	3.2	390	95
DEC										
20...	1400	61	650	7.8	1.0	35	12.9	3.4	210	--
JAN										
17...	1345	49	650	7.6	.0	5	10.1	.8	880	38
FEB										
15...	1500	130	480	7.8	.0	20	12.9	4.0	360	67
MAR										
14...	1500	111	520	8.2	6.0	10	12.5	2.9	46	28
APR										
25...	1400	39	600	8.1	16.0	30	10.2	3.0	1500	1350
MAY										
23...	1700	73	560	8.2	27.0	20	10.4	1.0	21000	390
JUN										
20...	1530	61	560	8.2	28.0	25	9.5	4.6	>20000	--
JUL										
18...	1345	158	530	8.2	29.0	40	8.7	2.7	14000	620
AUG										
16...	1300	108	450	8.0	24.0	170	7.6	3.5	E50000	--
SEP										
26...	1300	108	590	8.1	19.0	10	10.4	5.1	3000	--

DATE	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)
OCT										
20...	--	17	--	.56	.03	.34	.37	1.1	.12	.11
NOV										
22...	--	22	420	.57	.01	1.1	1.1	1.1	.09	--
DEC										
20...	--	18	413	.56	.07	.64	.71	2.0	.24	--
JAN										
17...	--	18	--	.56	.22	.38	.60	2.3	.19	.15
FEB										
15...	--	17	348	.47	.12	.78	.90	2.0	.20	--
MAR										
14...	--	20	372	.51	.04	.57	.61	1.2	.16	--
APR										
25...	--	18	--	.57	.14	.68	.82	2.1	.32	.23
MAY										
23...	--	16	398	.54	.02	.22	.24	.81	.30	--
JUN										
20...	--	18	371	.50	.02	.62	.64	.95	.25	--
JUL										
18...	--	23	--	.47	.03	.37	.40	.87	.14	.05
AUG										
16...	77000	17	303	.41	.01	2.0	2.0	2.6	.48	--
SEP										
26...	140	22	425	.58	.00	.47	.47	.95	.15	--

06853000 REPUBLICAN RIVER NEAR GUIDE ROCK, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)
OCT 20...	1315	8	270	42	78	18	30	.8	12	277
JAN 17...	1345	6	280	37	86	16	27	.7	9.5	297
APR 25...	1400	7	290	50	89	16	28	.7	13	290
JUL 18...	1345	7	200	7	47	19	44	1.4	17	230

DATE	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)
OCT 20...	0	227	91	.4	27	410	--	80	--	--
JAN 17...	0	244	72	.4	33	409	3	60	1	0
APR 25...	0	240	82	.5	38	419	--	70	--	--
JUL 18...	0	190	79	.7	2.7	346	5	120	3	0

DATE	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUS-PENDED MERCURY (HG) (UG/L) (71895)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)
OCT 20...	--	20	--	30	--	--	--	--	--	--
JAN 17...	2	20	4	70	.1	.0	.1	3	0	10
APR 25...	--	20	--	50	--	--	--	--	--	--
JUL 18...	2	30	12	4	.1	.0	.1	1	0	10

06853500 REPUBLICAN RIVER NEAR HARDY, NE

LOCATION.--Lat 40°00'01", long 97°56'55", in NE1/4NE1/4 sec.6, T.1 S., R.5 W., in Kansas, Republic County, Hydrologic Unit 10250016, at downstream side of highway bridge, 1.2 mi (1.9 km) southwest of Hardy and at mi 141.2 (227.2 km).

DRAINAGE AREA.--22,401 mi² (58,019 km²), of which about 7,500 mi² (19,425 km²) does not contribute directly to surface runoff.

PERIOD OF RECORD.--June 1904 to September 1915 (no winter records), April 1931 to current year. Prior to May 1932, published as "at Bostwick." Records for June 1896 to November 1903 published as "near Superior" in 18th to 22nd Ann. Repts., inclusive, Pt. 4, and WSP 75, 84, and 99, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 806: Drainage area. WSP 1006: 1941. WSP 1240: 1905(M), 1907-9, 1912, 1914-15, 1931. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 1,501.46 ft (457.645 m) above mean sea level. Prior to May 19, 1932, nonrecording gage at site at Bostwick, 20 mi (32 km) upstream at different datum.

REMARKS.--Records good except those for winter periods, which are poor. Natural flow affected by irrigation development above station and by storage in six reservoirs in Colorado and Nebraska. Considerable regulation since 1952 by Harlan County Reservoir (station 06849000).

AVERAGE DISCHARGE.--46 years (1913-14, 1932-77), 606 ft³/s (17.16 m³/s), 439,000 acre-ft/yr (0.541 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 225,000 ft³/s (6,370 m³/s) June 2, 1935, gage height, 19.4 ft (5.91 m), based on records for stations upstream; no flow Aug. 9-19, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stages since at least 1895, that of June 2, 1935, and 17.00 ft (5.182 m) June 24, 1947, discharge, 100,000 ft³/s (2,830 m³/s), based on records for upstream stations.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,460 ft³/s (211 m³/s) Sept. 13, gage height, 11.83 ft (3.606 m); no other peaks above regulated base of 2,500 ft³/s (70.8 m³/s); minimum daily, 10 ft³/s (0.28 m³/s), Nov. 30, Dec. 1,2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	41	10	70	90	143	72	59	110	102	135	215
2	50	40	10	70	100	145	67	62	100	78	159	209
3	45	38	30	70	100	148	64	132	80	77	195	1430
4	53	40	70	70	100	146	72	118	70	68	239	1250
5	125	41	110	70	100	147	80	80	60	98	468	1230
6	68	43	150	70	100	142	72	114	48	80	1040	671
7	62	45	150	70	100	142	62	112	38	66	591	431
8	62	48	120	70	120	141	59	104	42	114	241	346
9	63	49	100	70	150	138	59	118	44	165	156	294
10	60	48	80	70	180	139	56	156	37	112	135	263
11	51	48	80	70	230	155	54	146	37	128	147	244
12	46	48	70	70	250	176	53	140	74	162	138	4050
13	42	45	70	70	280	164	62	122	112	146	119	6200
14	43	45	70	70	300	150	120	116	343	130	115	2080
15	43	45	70	70	270	142	104	106	318	120	118	827
16	44	48	80	70	250	135	94	102	170	212	467	550
17	45	55	80	60	230	133	94	100	200	287	320	440
18	47	60	80	60	230	129	94	104	197	266	167	380
19	49	58	80	60	234	118	102	120	120	185	156	332
20	52	56	80	60	189	115	110	144	102	134	131	306
21	53	54	70	60	174	118	201	108	116	94	743	293
22	55	52	70	80	166	108	593	322	1060	96	1110	271
23	51	53	70	90	164	84	280	250	522	112	709	258
24	45	50	80	90	161	98	152	150	270	118	377	237
25	44	50	80	90	155	74	110	100	194	124	298	224
26	42	51	80	90	152	70	90	90	144	182	270	213
27	43	50	80	90	149	64	76	90	122	262	353	204
28	42	45	80	80	145	74	72	100	106	267	522	197
29	42	20	70	80	---	88	64	110	82	225	340	192
30	45	10	70	80	---	90	61	120	84	196	264	196
31	42	---	70	80	---	77	---	130	---	151	232	---
TOTAL	1609	1376	2410	2270	4869	3793	3251	3905	5002	4557	10455	24033
MEAN	51.9	45.9	77.7	73.2	174	122	108	126	167	147	337	801
MAX	125	60	150	90	300	176	593	322	1060	287	1110	6200
MIN	42	10	10	60	90	64	53	59	37	66	115	192
AC-FT	3190	2730	4780	4500	9660	7520	6450	7750	9920	9040	20740	47670

CAL YR 1976 TOTAL 50782 MEAN 139 MAX 1360 MIN 10 AC-FT 100700
WTR YR 1977 TOTAL 67530 MEAN 185 MAX 6200 MIN 10 AC-FT 133900

06879900 BIG BLUE RIVER AT SURPRISE, NE

LOCATION.--Lat 41°06'05", long 97°18'35", in NW1/4NW1/4 sec.15, T.13 N., R.1 E., Butler County, Hydrologic Unit 10270201, on left bank 50 ft (15 m) downstream from bridge on county road at south edge of Surprise.

DRAINAGE AREA.--345 mi² (894 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1964 to current year. Prior to October 1965, published as North Branch Big Blue River at Surprise.

GAGE.--Water-stage recorder and concrete broad-crested weir control. Altitude of gage is 1,520 ft (463 m), from topographic map.

REMARKS.--Records good above 5 ft³/s (0.14 m³/s) and poor below. Periodic temperature and conductance measurements are published in tables for water quality at miscellaneous sites.

AVERAGE DISCHARGE.--13 years, 27.4 ft³/s (0.776 m³/s), 19,850 acre-ft/yr (24.5 hm³/yr); median of yearly mean discharges, 22 ft³/s (0.623 m³/s), 15,900 acre-ft/yr (19.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft³/s (303 m³/s) July 19, 1965, gage height, 11.52 ft (3.511 m); no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.08 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 13	0745	316	8.9	3.36	1.024	Aug. 31	0700	1380	39.1	7.97	2.429
May 21	1700	334	9.5	3.42	1.042	Sept. 4	1230	*2180	61.7	9.25	2.819
May 30	1345	325	9.2	3.39	1.033						

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	.00	.00	.00	.00	.00	.00	.19	148	.80	.74	952
2	1.1	.00	.00	.00	.00	.00	.07	.03	150	.96	1.2	997
3	.48	.00	.00	.00	.00	.00	.02	.03	93	1.2	2.9	1130
4	.33	.00	.00	.00	.00	.00	5.0	.12	47	1.3	2.7	1900
5	.13	.00	.00	.00	.00	.00	6.7	.03	28	2.0	4.3	952
6	.05	.00	.00	.00	.00	.00	5.0	.00	18	1.7	72	169
7	.02	.00	.00	.00	.00	.00	4.4	.00	11	.74	112	69
8	.00	.00	.00	.00	.00	.00	3.5	.00	5.7	2.2	26	42
9	.00	.00	.00	.00	.00	.00	2.5	.00	2.9	2.7	35	26
10	.00	.00	.00	.00	.00	.00	1.9	.00	1.7	1.3	75	18
11	.00	.00	.00	.00	.00	.02	1.1	.00	1.2	4.0	21	12
12	.00	.00	.00	.00	.00	.06	49	.00	1.1	3.0	6.5	9.3
13	.00	.00	.00	.00	.00	.04	220	.00	5.6	1.9	3.6	7.8
14	.00	.00	.00	.00	.00	.01	42	.00	7.7	1.8	1.4	5.9
15	.00	.00	.00	.00	.00	.00	15	.00	3.7	2.0	3.9	3.9
16	.00	.00	.00	.00	.00	.00	8.8	.00	2.4	61	75	3.4
17	.00	.00	.00	.00	.00	.00	6.3	.10	1.3	18	75	2.0
18	.00	.00	.00	.00	.00	.00	4.7	.10	1.1	6.0	22	1.0
19	.00	.00	.00	.00	.00	.03	3.9	.06	3.6	4.5	32	1.1
20	.00	.00	.00	.00	.00	.01	9.9	.15	3.1	5.4	33	.95
21	.00	.00	.00	.00	.00	.01	6.6	139	2.9	4.5	39	.84
22	.00	.00	.00	.00	.00	.00	2.5	205	4.9	4.2	21	.58
23	.00	.00	.00	.00	.00	.00	1.2	158	2.5	2.8	17	.58
24	.00	.00	.00	.00	.00	.00	1.6	62	1.2	2.5	13	.32
25	.00	.00	.00	.00	.00	.00	1.6	35	1.2	2.0	9.3	.32
26	.00	.00	.00	.00	.00	.00	2.0	19	.90	28	5.9	.58
27	.00	.00	.00	.00	.00	.00	1.6	39	.69	17	3.0	.58
28	.00	.00	.00	.00	.00	.31	1.1	73	.34	9.3	1.0	.58
29	.00	.00	.00	.00	---	.16	.49	115	.28	2.9	1.4	.89
30	.00	.00	.00	.00	---	.00	.31	224	.53	1.6	165	.89
31	.00	---	.00	.00	---	.00	---	199	---	1.3	1320	---
TOTAL	4.11	.00	.00	.00	.00	.65	412.39	1269.61	551.54	178.60	2211.44	6310.11
MEAN	.13	.000	.000	.000	.000	.021	13.7	41.0	18.4	5.76	71.3	210
MAX	2.0	.00	.00	.00	.00	.31	220	224	150	61	1320	1900
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.28	.74	.74	.32
AC-FT	8.2	.00	.00	.00	.00	1.3	818	2520	1090	354	4390	12520

CAL YR 1976 TOTAL 1356.52 MEAN 3.71 MAX 637 MIN .00 AC-FT 2690
WTR YR 1977 TOTAL 10930.45 MEAN 30.0 MAX 1900 MIN .00 AC-FT 21700

06879800 BIG BLUE RIVER AT SURPRISE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965-1970, 1974-1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE (DEG C) (00010)
JUN , 1977				
09...	1130	3.0	170	22.5
JUL				
20...	1000	5.7	263	29.5
SEP , 1977				
21...	1040	.08	250	19.5

06880000 LINCOLN CREEK NEAR SEWARD, NE

LOCATION.--Lat 40°54'57", long 97°08'43", in NW1/4NE1/4 sec.24, T.11 N., R.2 E., Seward County, Hydrologic Unit 10270201, on left bank 20 ft (6 m) downstream from county road bridge, 2 mi (3 km) west of Seward, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--446 mi² (1,155 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to September 1973, March 1974 to current year. Monthly discharge only for some periods, published in WSP 1730.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,429.27 ft (435.641 m) above mean sea level.

REMARKS.--Records good except those for winter period, which are poor. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--23 years, (1953-73, 1974-77) 43.9 ft³/s (1.243 m³/s), 31,810 acre-ft/yr (39.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s (286 m³/s) June 17, 1957, gage height, 20.53 ft (6.258 m); minimum daily, 1.3 ft³/s (0.037 m³/s) July 31, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s (9.91 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (m)	Gage height	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 14	1430	435	12.3	9.90	3.018	Sept. 3	2200	*1570	44.5	17.28	5.267
May 22	0430	373	10.6	9.34	2.847						

Minimum daily discharge, 2.5 ft³/s (0.071 m³/s) Dec. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	5.2	5.6	4.5	4.4	8.0	7.1	8.7	199	4.9	8.3	1400
2	9.4	5.6	5.2	5.6	6.2	10	7.3	8.5	251	6.4	8.9	1260
3	6.8	4.7	5.8	5.2	8.6	11	8.1	10	157	5.4	9.4	1500
4	5.8	4.8	5.6	4.7	8.0	10	8.5	10	104	4.6	9.4	1440
5	5.3	5.6	5.4	4.0	7.4	8.6	8.3	8.8	78	5.5	43	1170
6	4.7	5.5	4.9	4.5	7.4	8.8	8.5	8.1	54	7.0	61	947
7	4.6	5.9	4.4	4.8	6.6	8.8	11	8.1	42	12	17	436
8	4.3	5.5	4.3	4.5	8.0	10	10	8.0	32	14	15	200
9	4.6	5.4	5.6	3.5	10	12	8.2	7.9	24	12	17	92
10	4.9	5.7	4.8	4.5	12	15	7.2	8.0	20	10	18	73
11	4.3	6.2	5.0	4.8	11	10	6.6	8.1	17	126	18	62
12	4.0	6.4	4.6	5.2	11	8.4	6.5	7.9	15	74	17	53
13	4.1	6.9	5.0	5.6	9.6	7.7	7.6	8.0	13	22	17	46
14	4.0	7.4	5.4	5.2	8.8	7.4	357	9.3	10	17	17	40
15	3.8	8.0	5.2	4.7	8.0	7.0	258	9.6	9.0	15	20	36
16	4.2	7.5	5.8	4.0	9.2	6.9	81	9.2	7.1	18	173	32
17	4.1	7.2	6.4	5.2	11	6.7	41	11	6.0	14	78	27
18	4.4	6.6	7.0	6.2	10	6.7	49	9.0	5.0	15	38	23
19	4.8	6.4	5.8	7.0	9.0	7.8	42	8.6	3.9	12	33	19
20	4.9	6.3	3.5	6.4	9.8	8.7	27	8.8	5.9	9.7	42	17
21	4.2	6.6	4.5	6.0	12	7.8	21	138	7.8	10	193	14
22	4.6	6.6	5.2	6.4	11	7.1	17	238	11	7.8	99	13
23	4.3	6.8	5.6	5.0	9.6	7.1	15	135	11	6.5	46	13
24	4.5	7.0	6.4	5.4	9.0	7.1	27	179	9.4	8.3	32	12
25	4.9	6.7	6.0	5.2	8.8	7.0	20	77	8.7	12	25	12
26	4.6	6.4	7.0	5.2	8.6	6.8	14	45	8.1	12	17	11
27	4.6	5.6	8.0	5.4	9.0	6.6	13	116	8.4	9.2	17	11
28	4.6	4.8	7.0	4.6	9.2	8.0	12	106	7.7	10	14	10
29	4.7	3.5	5.6	3.9	---	9.8	10	76	7.0	10	19	11
30	5.0	5.0	3.5	4.4	---	8.7	9.0	145	6.6	11	63	11
31	4.9	---	2.5	4.1	---	7.3	---	221	---	9.8	1160	---
TOTAL	154.9	181.8	166.6	155.7	253.2	262.8	1117.9	1651.6	1138.6	511.1	2341.0	8991
MEAN	5.00	6.06	5.37	5.02	9.04	8.48	37.3	53.3	38.0	16.5	75.5	300
MAX	11	8.0	8.0	7.0	12	15	357	238	251	126	1160	1500
MIN	3.8	3.5	2.5	3.5	4.4	6.6	6.5	7.9	3.9	4.6	8.3	10
AC-FT	307	361	330	309	502	521	2220	3280	2260	1010	4640	17830

CAL YR 1976 TOTAL 4628.2 MEAN 12.6 MAX 711 MIN 1.5 AC-FT 9180
WTR YR 1977 TOTAL 16926.2 MEAN 46.4 MAX 1500 MIN 2.5 AC-FT 33570

06880000 LINCOLN CREEK NEAR SEWARD, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-70, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM (COL. PER 100 ML) (31616)	FECAL COLIFORM .7UM-MF (COL./ 100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)
OCT											
20...	1100	5.7	553	7.2	4.0	15	10.2	4.0	150	--	117
NOV											
11...	0930	6.2	500	6.7	.5	10	13.2	--	--	20	290
DEC											
07...	1030	4.4	595	7.7	.5	5	12.3	1.2	--	12	16
JAN											
12...	1130	4.9	646	7.3	.0	5	8.6	3.3	--	3	40
FEB											
01...	1240	4.4	618	7.1	.5	25	12.3	3.8	--	8	30
MAR											
22...	1100	7.2	505	8.5	5.0	5	15.0	3.0	--	5	42
APR											
06...	1130	7.8	525	8.6	10.0	7	16.7	2.8	--	7	16
MAY											
20...	1215	9.1	510	7.9	19.5	55	8.1	3.8	--	630	1860
JUN											
08...	1115	32	228	7.3	22.0	--	6.8	6.2	--	81310	2900
JUL											
20...	1000	10	527	7.4	25.5	80	6.7	6.7	--	--	--
AUG											
11...	1225	18	410	7.8	20.0	150	8.1	8.8	--	3000	--
SEP											
22...	1230	13	470	7.8	17.5	55	7.6	3.6	--	933	--

DATE	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED-PHOSPHORUS (P) (MG/L) (00666)
OCT										
20...	--	6.4	352	.48	.02	.61	.63	1.1	.39	.30
NOV										
11...	--	7.9	358	.49	.00	.68	.68	.68	.25	--
DEC										
07...	--	6.2	--	.48	.00	.18	.18	1.4	.22	.19
JAN										
12...	--	7.4	419	.57	.04	.30	.34	2.2	.30	--
FEB										
01...	--	7.1	409	.56	.00	.38	.38	2.2	.48	--
MAR										
22...	--	6.1	--	.42	.01	.62	.63	.77	.25	.20
APR										
06...	--	6.9	325	.44	.06	.52	.58	1.0	.35	--
MAY										
20...	--	15	315	.43	.11	.47	.58	1.4	.66	--
JUN										
08...	--	5.4	--	.19	--	--	4.1	--	1.5	.55
JUL										
20...	--	15	333	.45	.03	2.4	2.4	2.5	.49	--
AUG										
11...	2600	14	295	.40	.03	2.4	2.4	2.6	.75	--
SEP										
22...	4500	6.9	--	.47	.04	.85	.89	3.4	.61	.42

06880000 LINCOLN CREEK NEAR SEWARD, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)
DEC 07...	1030	6	250	0	76	15	28	.8	6.7	321
MAR 22...	1100	6	220	0	64	14	25	.7	6.6	288
JUN 08...	1115	900	78	0	23	4.9	11	.5	12	97
SEP 22...	1230	13	230	0	68	14	28	.8	9.8	290

DATE	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)
DEC 07...	0	263	38	.3	27	356	--	40	--	--
MAR 22...	8	243	26	.3	19	307	6	80	1	0
JUN 08...	0	80	16	.2	19	139	--	50	--	--
SEP 22...	0	240	38	.3	38	346	6	50	16	0

DATE	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUS-PENDED MERCURY (HG) (UG/L) (71895)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)
DEC 07...	--	30	--	120	--	--	--	--	--	--
MAR 22...	1	80	5	230	.1	.1	.0	5	0	0
JUN 08...	--	80	--	20	--	--	--	--	--	--
SEP 22...	6	98	77	120	.1	.1	.0	8	0	10

06880500 BIG BLUE RIVER AT SEWARD, NE

LOCATION.--Lat 40°54'05", long 97°05'55", in NW1/4NW1/4 sec.28, T.11 N., R.3 E., Seward County, Hydrologic Unit 10270201, at downstream end of left abutment of bridge on State Highway 15 at south edge of Seward, 0.5 mi (0.8 km) upstream from Plum Creek and 1.4 mi (2.3 km) downstream from Lincoln Creek.

DRAINAGE AREA.--1,101 mi² (2,852 km²).

PERIOD OF RECORD.--October 1953 to current year. Monthly discharge only for some periods, published in WSP 1730.

REVISED RECORDS.--WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,415.16 ft (431.341 m) above mean sea level. Prior to Dec. 19, 1969, at site 1.2 mi (1.9 km) upstream at datum 6.33 ft (1.929 m) higher.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--24 years, 109 ft³/s (3.087 m³/s), 78,970 acre-ft/yr (97.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,300 ft³/s (433 m³/s) June 18, 1957; maximum gage height, 22.83 ft (6.959 m) June 16, 1967, site and datum then in use; no flow July 30, 31, 1955, result of irrigation pumping.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,440 ft³/s (126 m³/s) Sept. 4 at 0200, gage height, 23.46 ft (7.151 m), no other peak above base of 900 ft³/s (25.5 m³/s); minimum daily, 3.5 ft³/s (0.099 m³/s) Oct. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	5.8	6.6	5.4	7.6	12	19	15	634	6.6	14	2080
2	25	6.4	6.2	6.4	8.4	14	23	15	568	6.2	13	2320
3	18	5.8	8.6	6.8	10	16	23	23	425	6.2	12	3830
4	13	5.3	8.4	6.4	9.4	15	22	26	306	5.3	13	4180
5	10	6.6	8.0	6.0	9.0	14	20	21	215	4.5	23	3200
6	7.7	8.7	7.8	7.0	8.6	15	26	49	137	5.4	100	2740
7	7.0	8.7	8.8	7.2	8.0	15	30	39	97	7.7	29	2360
8	6.5	8.9	9.2	7.2	9.8	16	32	30	67	13	18	1640
9	5.9	10	9.6	5.0	12	16	31	26	50	10	117	574
10	6.0	9.7	8.4	5.8	17	17	24	23	40	8.2	78	226
11	7.2	8.5	8.8	8.0	15	22	19	22	33	209	74	164
12	4.3	7.5	8.6	8.6	14	20	21	21	26	206	180	135
13	5.5	8.0	8.2	9.0	13	20	22	20	21	50	110	114
14	7.0	8.1	8.6	10	12	20	317	20	16	34	76	95
15	8.8	8.2	9.0	9.0	12	19	537	20	14	25	75	86
16	8.8	8.4	9.2	7.4	15	19	229	20	18	32	487	76
17	4.0	8.4	9.4	7.8	17	16	116	50	21	23	357	70
18	4.5	8.8	9.6	8.6	16	14	85	70	15	20	256	61
19	5.0	7.6	8.6	10	16	17	76	35	11	21	194	56
20	5.5	5.6	6.4	9.8	15	18	53	21	9.2	22	126	50
21	4.2	5.6	7.8	9.4	15	17	42	308	16	17	223	46
22	4.9	6.1	8.6	9.8	14	15	35	725	20	15	210	42
23	3.5	7.7	9.4	8.6	13	14	33	541	23	10	166	38
24	4.0	7.3	9.2	9.0	12	14	45	543	25	9.9	111	35
25	4.8	7.3	7.4	8.6	12	14	42	304	32	13	59	32
26	4.8	7.0	7.8	9.0	13	14	31	165	21	13	41	30
27	4.9	6.4	8.4	8.0	12	14	25	238	13	12	35	28
28	5.5	5.6	7.0	6.0	12	18	22	398	11	12	26	30
29	5.4	5.0	6.2	7.4	---	17	18	332	8.5	15	23	28
30	6.2	7.0	4.9	7.0	---	16	16	373	7.4	21	54	27
31	5.8	---	4.0	7.2	---	16	---	547	---	18	1740	---
TOTAL	234.7	220.0	248.7	241.4	347.8	504	2034	5040	2900.1	871.0	5080	24393
MEAN	7.57	7.33	8.02	7.79	12.4	16.3	67.8	163	96.7	28.1	163	813
MAX	25	10	9.6	10	17	22	537	725	634	209	1740	4180
MIN	3.5	5.0	4.0	5.0	7.6	12	16	15	7.4	4.5	12	27
AC-FT	466	436	493	479	690	1000	4030	10000	5750	1730	10000	48380

CAL YR 1976 TOTAL 9187.2 MEAN 25.1 MAX 956 MIN 1.1 AC-FT 18220
WTR YR 1977 TOTAL 42074.7 MEAN 115 MAX 4180 MIN 3.5 AC-FT 83460

06880520 BIG BLUE RIVER BELOW SEWARD, NE

LOCATION.--Lat 40°52'15", long 97°04'20", in NE1/4SE1/4NW1/4 sec.3, T.10 N., R.3 E., Seward County, Hydrologic Unit 10270202, at bridge on county road about 2.5 miles southeast of Seward.

PERIOD OF RECORD.--Water year 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	DIS-SOLVED OXYGEN (MG/L) (00300)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLI-FORM (COL. PER 100 ML) (31616)	FECAL COLI-FORM .7UM-MF (COL./100 ML) (31625)	STREP-TOCOCCI (COL-ONIES PER 100 ML) (31679)
OCT 20...	0945	8.8	684	7.2	4.5	20	5.9	11	36200	--	7600
NOV 11...	1045	8.1	634	6.9	2.0	10	7.6	--	--	5600	1730
DEC 07...	1200	6.0	777	7.8	.5	5	8.8	7.2	--	3100	680
JAN 12...	1330	9.0	781	7.3	.0	7	9.0	12	--	13700	2670
FEB 01...	1100	9.7	688	6.9	.5	5	6.8	14	--	14000	2800
MAR 22...	1230	19	601	8.5	7.5	15	14.0	9.0	--	4600	1570
APR 06...	1300	23	660	8.7	11.0	30	16.8	5.2	--	4300	1170
MAY 20...	1300	28	350	7.5	19.5	140	3.9	13	--	20000	100000
JUN 08...	1315	77	280	7.1	23.0	--	5.6	13	--	81600	1280
JUL 20...	1330	24	526	7.6	28.5	110	6.1	17	--	--	--
AUG 11...	0940	60	270	7.8	21.0	450	5.6	13	--	129000	--
SEP 22...	1050	52	582	7.5	17.5	40	7.5	10	--	8000	--

DATE	FECAL STREP-TOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO-GEN (N) (MG/L) (00605)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L) (00625)	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L) (00666)
OCT 20...	--	20	399	.54	.38	2.7	3.1	4.6	1.2	1.1
NOV 11...	--	20	415	.56	.00	1.9	1.9	1.9	.96	--
DEC 07...	--	14	--	.61	1.0	.80	1.8	2.9	1.1	1.0
JAN 12...	--	15	487	.66	1.1	1.0	2.1	3.9	.89	--
FEB 01...	--	15	461	.63	1.6	.50	2.1	4.1	1.1	--
MAR 22...	--	20	--	.48	.03	2.2	2.2	2.6	.79	.63
APR 06...	--	21	416	.57	.06	1.4	1.5	1.9	.62	--
MAY 20...	--	6.3	223	.30	.68	1.9	2.6	4.3	.98	--
JUN 08...	--	6.4	--	.20	.00	4.0	4.0	--	1.5	.35
JUL 20...	--	10	332	.45	.01	2.5	2.5	3.6	.39	--
AUG 11...	7800	7.7	182	.25	.13	2.6	2.7	4.5	2.0	--
SEP 22...	3000	12	--	.52	.12	1.3	1.4	3.1	.71	.48

06880320 BIG BLUE RIVER BELOW SEWARD, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)
DEC 07...	1200	25	290	0	86	19	41	1.0	9.6	382
MAR 22...	1230	25	220	0	65	15	39	1.1	8.6	274
JUN 08...	1315	700	82	2	24	5.3	11	.5	12	97
SEP 22...	1050	95	250	19	70	18	30	.8	12	280

DATE	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)
DEC 07...	0	313	61	.3	26	446	--	100	--	--
MAR 22...	0	225	58	.3	8.7	350	3	70	2	0
JUN 08...	0	80	22	.2	16	145	--	50	--	--
SEP 22...	0	230	69	.3	29	379	5	80	14	0

DATE	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUS-PENDED MERCURY (HG) (UG/L) (71895)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)
DEC 07...	--	70	--	120	--	--	--	--	--	--
MAR 22...	5	50	10	160	.0	.0	.0	4	0	10
JUN 08...	--	110	--	80	--	--	--	--	--	--
SEP 22...	8	30	63	290	.1	.1	.0	5	0	20

06880556 WEST FORK BIG BLUE RIVER BELOW HASTINGS, NE

LOCATION.--Lat 40°36'09", long 98°20'02", in NW1/4NW1/4SW1/4 sec.3, T.7 N., R.9 W., Adams County, Hydrologic Unit 10270203, at bridge on county road 1.4 miles north of U.S. Highway 6 and about 1.5 miles northeast of Hastings.

PERIOD OF RECORD.--Water year 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLI- FORM .7UM-MF (COL./ 100 ML) (31625)	STREP- TOCOCCI (COL- ONIES PER 100 ML) (31679)
OCT 20...	1700	19	640	7.6	11.0	18	9.0	4.5	81000	9000
NOV 22...	1700	24	890	7.5	8.8	5	6.4	14	240000	6200
DEC 20...	1615	25	750	7.3	3.0	10	7.2	11	280000	--
JAN 18...	0830	8.0	808	7.3	1.0	11	5.7	12	730000	28000
FEB 15...	1745	8.9	750	7.2	7.0	20	9.2	10	570000	3100
MAR 14...	1715	8.0	880	7.2	18.0	12	5.3	15	1260000	3000
APR 25...	1030	5.2	700	7.3	22.0	12	6.4	13	220000	2000
MAY 24...	0815	7.0	470	7.2	20.0	50	3.2	18	700000	5900
JUN 21...	0830	150	185	7.2	17.0	1700	6.8	12	>200000	--
JUL 18...	1745	20	510	7.7	29.0	60	5.3	14	2400000	39000
AUG 16...	1715	21	400	7.1	23.0	50	5.9	20	460000	--
SEP 26...	1630	18	460	7.3	21.0	200	6.6	11	700000	--

DATE	FECAL STREP- TOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L) (00625)	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L) (00666)
OCT 20...	--	34	--	.45	3.8	.70	4.5	8.4	2.6	2.3
NOV 22...	--	67	428	.58	3.4	1.3	4.7	15	8.7	--
DEC 20...	--	50	488	.66	4.8	1.0	5.8	16	8.3	--
JAN 18...	--	66	--	.65	8.3	.00	.47	9.7	8.3	7.9
FEB 15...	--	58	510	.69	2.1	1.0	3.1	11	2.9	--
MAR 14...	--	72	496	.67	3.1	.10	3.2	16	8.6	--
APR 25...	--	74	--	.58	4.6	1.0	5.6	18	7.2	6.7
MAY 24...	--	35	363	.49	4.4	2.9	7.3	13	7.9	--
JUN 21...	--	7.4	146	.20	.23	19	19	--	2.8	--
JUL 18...	--	31	--	.44	2.1	.90	3.0	6.6	2.3	1.8
AUG 16...	7000	21	283	.38	2.3	1.2	3.5	6.5	2.1	--
SEP 26...	13000	30	291	.40	3.2	.60	3.8	6.1	4.0	--

06880556 WEST FORK BIG BLUE RIVER BELOW HASTINGS, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)
OCT										
20...	1700	7	170	12	54	8.9	47	1.6	10	198
JAN										
18...	0830	25	190	0	59	9.9	88	2.8	14	252
APR										
25...	1030	35	180	17	56	10	80	2.6	14	200
JUL										
18...	1745	18	170	24	54	9.0	42	1.4	10	180

DATE	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)
OCT										
20...	0	159	54	.6	26	330	--	110	--	--
JAN										
18...	0	207	79	.8	35	477	2	440	2	0
APR										
25...	0	160	60	.8	31	425	--	280	--	--
JUL										
18...	0	150	57	.5	28	320	3	110	5	0

DATE	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUS-PENDED MERCURY (HG) (UG/L) (71895)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)
OCT										
20...	--	30	--	40	--	--	--	--	--	--
JAN										
18...	15	70	12	40	.2	.1	.1	4	1	100
APR										
25...	--	70	--	30	--	--	--	--	--	--
JUL										
18...	6	40	17	70	.2	.0	.2	2	0	50

06880800 WEST FORK BIG BLUE RIVER NEAR DORCHESTER, NE

LOCATION.--Lat 40°43'52", long 97°10'38", in SW1/4SE1/4 sec.23, T.9 N., R.2 E., Seward County, Hydrologic Unit 10270203, on right bank 60 ft (18 m) downstream from bridge on county road, 6.2 mi (10.0 km) northwest of Dorchester, and 19 mi (31 km) upstream from mouth.

DRAINAGE AREA.--1,206 mi² (3,124 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1958 to current year.

REVISED RECORDS.-- WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,403.48 ft (427.781 m) above mean sea level. Prior to Apr. 30, 1970, at site 60 ft (18 m) upstream at same datum.

REMARKS.--Records fair except those for winter period, which are poor. Some diversion by pumping for irrigation above station. Natural flow of stream affected by ground-water withdrawals for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--19 years, 168 ft³/s (4.758 m³/s), 121,700 acre-ft/yr (0.150 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft³/s (323 m³/s) Mar. 20, 1960, gage height, 20.34 ft (6.200 m); minimum daily, 12 ft³/s (0.34 m³/s) Dec. 31, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 10, 1950, reached a stage of 24.8 ft (7.56 m), present datum, from floodmarks, discharge, 49,400 ft³/s (1,400 m³/s), from contracted-opening and flow-over-road measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Sept. 1	1830	1520	43.0	11.96	3.645
Sept. 18	0400	*1980	56.1	13.30	4.054

Minimum daily discharge, 12 ft³/s (0.34 m³/s) Dec. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	39	33	17	34	41	57	58	371	60	42	1090
2	36	39	32	21	36	41	53	52	373	51	40	1190
3	41	39	37	23	38	45	51	78	268	42	45	568
4	38	39	34	22	34	44	53	62	236	37	78	358
5	38	35	35	21	31	42	55	57	187	31	142	320
6	37	35	30	23	35	39	58	57	135	29	1000	255
7	37	35	24	25	34	42	57	61	110	27	963	213
8	37	35	26	24	36	42	51	67	98	31	807	151
9	37	35	28	16	38	43	47	88	86	35	443	108
10	37	35	25	18	39	45	46	78	78	32	751	86
11	37	34	27	17	39	47	44	63	71	52	437	77
12	38	30	26	19	41	48	44	56	69	98	268	88
13	39	31	28	21	39	48	60	56	71	101	168	82
14	39	32	30	22	39	47	59	53	89	103	136	195
15	39	34	28	21	70	46	286	54	68	218	262	552
16	39	34	30	18	60	42	217	56	67	153	898	851
17	39	35	33	24	50	46	151	58	113	150	852	1880
18	39	36	40	27	43	42	117	53	198	122	1130	1880
19	39	37	27	31	41	45	99	53	162	79	1270	1090
20	35	37	16	35	41	50	86	68	126	72	540	390
21	35	36	22	33	41	50	78	202	103	66	362	230
22	35	35	23	35	43	49	71	183	111	60	233	178
23	39	36	22	30	44	49	65	507	118	99	175	148
24	39	37	25	34	43	47	66	480	140	60	155	128
25	39	37	23	33	44	45	60	267	258	63	223	109
26	39	37	25	31	42	46	62	201	343	60	296	95
27	38	36	28	28	42	43	77	321	325	59	270	86
28	36	34	21	25	40	49	66	238	261	52	233	79
29	36	30	16	32	---	61	54	548	124	52	177	78
30	37	34	13	31	---	58	56	503	76	51	188	72
31	39	---	12	30	---	62	---	336	---	44	1120	---
TOTAL	1165	1058	819	787	1157	1438	2351	4998	4833	2189	13700	12583
MEAN	37.6	35.3	26.4	25.4	41.3	46.4	78.4	161	161	70.6	442	419
MAX	41	39	40	35	70	62	286	548	373	218	1270	1880
MIN	32	30	12	16	31	39	44	52	67	27	40	72
AC-FT	2310	2100	1620	1560	2290	2850	4660	9910	9590	4340	27170	24960

CAL YR 1976 TOTAL 18683 MEAN 51.0 MAX 678 MIN 12 AC-FT 37060
WTR YR 1977 TOTAL 47078 MEAN 129 MAX 1880 MIN 12 AC-FT 93380

06880800 WEST FORK BIG BLUE RIVER NEAR DORCHESTER, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-70, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM (COL. PER 100 ML) (31616)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)
OCT											
07...	1130	37	547	7.5	9.5	150	--	4.0	1100	--	400
NOV											
16...	1220	33	560	7.6	1.0	8	14.2	3.2	--	<20	125
DEC											
08...	1030		701	7.2	.5	6	11.0	2.2	--	31	88
JAN											
18...	1010		648	7.7	.5	5	10.5	9.6	--	80	180
FEB											
10...	1500	39	508	7.9	3.0	8	12.0	7.0	--	10	146
MAR											
02...	1045	38	532	7.6	1.0	6	12.4	2.0	--	33	68
APR											
12...	1400	44	586	8.5	19.0	45	8.5	8.3	--	90	4200
MAY											
03...	1315	83	425	7.4	18.0	55	--	8.2	--	50000	100000
JUN											
17...	1000	96	500	7.8	22.5	250	7.6	12	--	3000	3130
JUL											
05...	1045	33	500	7.7	31.0	220	8.2	11	--	1400	--
AUG											
08...	1220	792	178	6.9	28.0	500	5.5	5.8	--	5900	--
SEP											
28...	1000	79	455	8.0	16.0	120	8.9	3.6	--	410	--

DATE	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)
OCT										
07...	--	37	353	.48	.00	.55	.55	3.5	1.2	.81
NOV										
16...	--	19	350	.48	.00	1.4	1.4	1.5	.56	--
DEC										
08...	--	28	--	.55	.00	.86	.86	3.1	.69	.63
JAN										
18...	--	18	402	.55	.32	.31	.63	2.6	.53	--
FEB										
10...	--	32	382	.52	.29	.91	1.2	3.0	.53	--
MAR										
02...	--	22	--	.45	.05	.42	.47	2.1	.77	.69
APR										
12...	--	24	378	.51	.10	1.0	1.1	2.3	.83	--
MAY										
03...	--	12	272	.37	.21	2.9	3.1	5.0	1.0	--
JUN										
17...	--	26	--	.48	.06	1.9	2.0	3.7	.95	.50
JUL										
05...	3800	15	308	.42	.22	1.3	1.5	3.7	.89	--
AUG										
08...	11400	8.2	--	.12	.20	3.2	3.4	4.9	1.2	.29
SEP										
28...	2600	16	290	.39	.27	.31	.58	2.0	.75	--

06880800 WEST FORK BIG BLUE RIVER NEAR DORCHESTER, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-70, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	DIS-SOLVED OXYGEN (MG/L) (00300)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLI-FORM (COL. PER 100 ML) (31616)	FECAL COLI-FORM .7UM-MF (COL./100 ML) (31625)	STREP-TOCOCCI (COL-ONIES PER 100 ML) (31679)
OCT 07...	1130	37	547	7.5	9.5	150	--	4.0	1100	--	480
NOV 16...	1220	33	560	7.6	1.0	8	14.2	3.2	--	<20	125
DEC 08...	1030	25	701	7.2	.5	6	11.0	2.2	--	31	88
JAN 18...	1010	27	648	7.7	.5	5	10.5	9.6	--	60	180
FEB 10...	1500	39	508	7.9	3.0	8	12.0	7.0	--	10	186
MAR 02...	1045	38	532	7.6	1.0	6	12.4	2.0	--	33	68
APR 12...	1440	48	586	8.5	19.0	45	8.5	8.3	--	90	4200
MAY 03...	1315	83	425	7.4	18.0	55	--	8.2	--	50000	100000
JUN 17...	1000	96	500	7.8	22.5	250	7.6	12	--	3000	3130
JUL 05...	1045	33	500	7.7	31.0	220	8.2	11	--	1400	--
AUG 08...	1220	792	178	6.9	28.0	500	5.5	5.8	--	5900	--
SEP 28...	1000	79	455	8.0	16.0	120	8.9	3.6	--	410	--

DATE	FECAL STREP-TOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO-GEN (N) (MG/L) (00605)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L) (00625)	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L) (00666)
OCT 07...	--	37	353	.48	.00	.55	.55	3.5	1.2	.81
NOV 16...	--	19	350	.48	.00	1.4	1.4	1.5	.56	--
DEC 08...	--	28	--	.55	.00	.86	.86	3.1	.69	.63
JAN 18...	--	18	402	.55	.32	.31	.63	2.6	.53	--
FEB 10...	--	32	382	.52	.29	.91	1.2	3.0	.53	--
MAR 02...	--	22	--	.45	.05	.82	.87	2.1	.77	.69
APR 12...	--	24	378	.51	.10	1.0	1.1	2.3	.83	--
MAY 03...	--	12	272	.37	.21	2.9	3.1	5.0	1.0	--
JUN 17...	--	26	--	.48	.06	1.9	2.0	3.7	.95	.54
JUL 05...	3800	15	308	.42	.22	1.3	1.5	3.7	.89	--
AUG 08...	11400	8.2	--	.12	.20	3.2	3.4	4.9	1.2	.29
SEP 28...	2600	16	290	.39	.27	.31	.58	2.0	.75	--

06880800 WEST FORK BIG BLUE RIVER NEAR DORCHESTER, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)
DEC 08...	1030	8	260	14	79	15	45	1.2	7.8	299
MAR 02...	1045	8	210	6	64	11	33	1.0	6.9	243
JUN 17...	1000	55	190	12	59	11	46	1.4	11	220
AUG 08...	1220	320	42	1	12	3.0	7.3	.5	10	50

DATE	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)
DEC 08...	0	245	58	.3	26	407	--	70	--	--
MAR 02...	0	199	59	.3	22	329	4	70	1	0
JUN 17...	0	180	59	.5	20	350	--	70	--	--
AUG 08...	0	41	12	.3	11	80	3	80	1	10

DATE	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUS-PENDED MERCURY (HG) (UG/L) (71895)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)
DEC 08...	--	40	--	300	--	--	--	--	--	--
MAR 02...	1	70	4	220	.1	.1	.0	3	0	10
JUN 17...	--	50	--	30	--	--	--	--	--	--
AUG 08...	4	70	6	8	.2	.2	.0	0	0	0

06881000 BIG BLUE RIVER NEAR CRETE, NE

LOCATION.--Lat 40°35'47", long 96°57'36", in SW1/4SE1/4 sec.3, T.7 N., R.4 E., Saline County, Hydrologic Unit 10270202, on downstream side of right pier of highway bridge, 1.8 mi (2.9 km) south of Missouri Pacific Railroad station in Crete, 3.3 mi (5.3 km) downstream from Walnut Creek, and 3.6 mi (5.8 km) upstream from Squaw Creek.

DRAINAGE AREA.--2,716 mi^2 (7,034 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1945 to current year. Prior to Oct. 1, 1953, discharge published only for stages above 12.0 ft because of variable backwater from dam downstream until 1952 and diurnal fluctuation from powerplant upstream in 1952-53.

REVISED RECORDS.-- WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,311.7 ft (399.81 m) above mean sea level. Prior to Jan. 28, 1954, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by ground-water and surface-water withdrawals for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--24 years (1953-77), 338 ft^3/s (9.572 m^3/s), 244,900 acre-ft/yr (302 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,600 ft^3/s (782 m^3/s) July 10, 1950, gage height, 28.74 ft (8.760 m); maximum gage height, 29.80 ft (9.083 m) June 14, 1967; minimum daily discharge, 7.4 ft^3/s (0.21 m^3/s) July 15, 16, 18, Aug. 18, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,260 ft^3/s (149 m^3/s) Sept. 6 at 0900, gage height, 20.69 ft (6.306 m); no other peak above base of 3,000 ft^3/s (85.0 m^3/s); minimum daily, 16 ft^3/s (0.45 m^3/s) July 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	60	52	54	54	74	98	92	957	90	55	3690
2	66	59	53	58	54	78	97	90	1960	73	52	4190
3	68	58	54	60	54	83	94	90	901	57	33	4190
4	78	58	54	56	54	82	101	111	739	48	38	4530
5	71	55	56	54	58	76	99	108	599	35	62	4930
6	65	54	58	56	58	81	97	103	469	30	100	5050
7	62	53	76	52	56	75	98	90	360	25	951	3980
8	61	54	70	50	56	75	99	112	261	18	882	3530
9	60	54	62	48	55	75	96	106	211	16	819	2680
10	58	57	56	54	56	76	92	112	175	17	866	944
11	57	56	87	60	60	88	90	101	147	42	761	615
12	55	45	52	62	65	89	88	89	126	100	653	536
13	56	51	59	66	67	92	89	82	120	176	300	486
14	55	54	55	60	69	88	102	79	112	200	321	419
15	53	54	57	54	68	87	233	79	115	105	201	381
16	56	57	59	50	66	85	769	80	87	235	842	451
17	54	62	60	66	65	84	469	83	76	180	1120	1210
18	55	66	62	72	69	84	312	85	116	153	1250	1680
19	57	57	64	70	73	90	276	86	101	174	1310	1740
20	58	57	69	66	73	95	202	87	167	76	1300	944
21	57	57	64	60	72	94	168	161	101	48	778	698
22	56	52	62	56	70	92	141	1200	111	72	571	370
23	57	63	60	55	88	90	124	1090	102	63	516	323
24	59	56	58	55	81	89	113	1050	159	51	690	276
25	59	59	57	59	85	85	112	920	172	66	356	230
26	59	59	59	57	81	83	110	590	300	44	366	195
27	58	54	59	59	75	81	110	466	179	50	300	165
28	59	65	63	52	88	93	116	1060	114	49	357	160
29	58	48	64	54	---	106	105	776	251	44	310	182
30	59	52	58	56	---	105	99	907	180	48	261	117
31	59	---	50	54	---	100	---	1060	---	51	454	---
TOTAL	1856	1672	1868	1785	1870	2675	4799	11136	9903	2431	16707	49403
MEAN	59.9	55.7	60.3	57.6	66.8	86.3	160	359	330	78.4	539	1647
MAX	78	66	87	72	88	106	769	1200	1960	235	1310	5050
MIN	53	45	50	48	54	74	88	79	76	16	33	117
AC-FT	3680	3320	3710	3540	3710	5310	9520	22090	19640	4820	33140	97990

CAL YR 1976 TOTAL 33627.0 MEAN 91.9 MAX 1200 MIN 7.4 AC-FT 66700
WTR YR 1977 TOTAL 106105.0 MEAN 291 MAX 5050 MIN 16 AC-FT 210500

06881000 BIG BLUE RIVER NEAR CRETE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961-63, 1968 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1961 to September 1962, April 1968 to current year.
SEDIMENT RECORDS: October 1961 to September 1962.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 32.5°C July 24, 1977; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 32.5°C July 24; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM (COL. PER 100 ML) (31616)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)
OCT												
07...	1340	63	532	7.8	14.0	100	--	9.1	41700	--	700	--
NOV												
16...	1000	61	676	--	1.0	20	13.6	8.2	--	4700	400	--
DEC												
08...	1030	70	705	7.5	.5	9	12.0	9.0	--	30000	13200	--
JAN												
18...	1230	71	675	7.5	.5	10	9.9	6.2	--	8670	280	--
FEB												
10...	1045	55	568	7.6	2.0	7	10.5	11	--	560	500	--
MAR												
02...	1205	72	566	7.6	2.0	15	11.7	3.6	--	230	840	--
APR												
12...	1000	87	587	8.3	17.0	35	9.4	7.8	--	85	333	--
MAY												
03...	1025	98	505	8.0	18.0	150	--	12	--	8500	8700	--
23...	1740	1000	214	7.6	18.0	1200	7.4	6.6	--	79000	56000	--
JUN												
02...	1050	1060	193	7.3	21.0	820	5.7	16	--	8000	16800	--
17...	1210	74	410	7.6	22.5	850	7.7	11	--	21000	6400	--
JUL												
05...	1330	32	530	7.9	28.5	120	8.0	16	--	3700	--	1020
AUG												
19...	1045	1620	122	7.3	24.0	920	6.6	20	--	>600000	--	92000
SEP												
28...	1700	148	571	8.2	17.5	120	9.0	12	--	2830	--	1160

DATE	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	DISSOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)
OCT											
07...	30	328	.45	56.1	2.4	.07	1.0	1.1	3.5	.94	.63
NOV											
16...	22	394	.54	66.5	.93	.01	.95	.96	1.9	.76	--
DEC											
08...	25	--	.59	82.0	1.9	.12	1.1	1.2	3.1	.74	.62
JAN											
18...	21	421	.57	81.0	1.8	1.1	.20	1.3	3.1	.75	--
FEB											
10...	16	427	.58	63.4	2.2	.58	.41	.99	3.2	.73	--
MAR											
02...	26	--	.47	67.7	1.5	.21	.61	.82	2.3	.72	.58
APR											
12...	23	394	.54	92.6	.47	.18	1.5	1.7	2.2	.56	--
MAY											
03...	25	332	.45	87.8	2.3	.16	1.3	1.5	3.8	.80	--
23...	8.4	--	.17	563	4.5	--	--	9.0	14	2.7	.30
JUN											
02...	8.2	--	.15	312	--	--	--	9.1	--	1.7	.35
17...	14	--	.55	81.7	2.0	.07	2.7	2.8	4.8	1.1	.52
JUL											
05...	16	319	.43	27.6	1.6	.53	.67	1.2	2.8	.96	--
AUG											
19...	--	--	--	--	--	--	--	--	--	--	--
SEP											
28...	17	318	.43	127	1.5	.18	.64	.82	2.3	.76	--

06881000 BIG BLUE RIVER NEAR CRETE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLATINUM-COBALT UNITS) (00080)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARDNESS (CA,MG) (MG/L) (00900)	NON-CARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)
DEC												
08...	1430	18	--	270	4	84	15	45	1.2	9.3	326	0
MAR												
02...	1245	8	--	210	12	66	12	37	1.1	7.5	246	0
MAY												
23...	1240	410	270	59	11	17	4.0	9.9	.6	10	58	0
JUN												
02...	1050	400	210	56	7	16	3.9	10	.6	8.6	60	0
17...	1210	90	--	160	10	48	9.2	24	.8	11	180	0

DATE	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED FLUORIDE (F) (MG/L) (00950)	DISSOLVED SILICA (SIO2) (MG/L) (00955)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DISSOLVED AMMONIA NITROGEN (N) (MG/L) (00608)	DISSOLVED ORGANIC NITROGEN (N) (MG/L) (00607)	SUSPENDED KJEL. NITROGEN (N) (MG/L) (00624)	DISSOLVED KJEL. NITROGEN (N) (MG/L) (00623)	TOTAL ARSENIC (AS) (UG/L) (01002)
DEC											
08...	267	65	.3	27	432	--	--	--	--	--	--
MAR											
02...	202	57	.3	20	308	--	--	--	--	--	--
MAY											
23...	48	17	.4	11	122	3.4	.23	1.5	7.3	1.7	6
JUN											
02...	49	20	.3	11	109	<.24	.19	1.1	7.8	1.3	4
17...	150	42	.4	22	259	--	--	--	--	--	--

DATE	SUSPENDED ARSENIC (AS) (UG/L) (01001)	DISSOLVED ARSENIC (AS) (UG/L) (01000)	DISSOLVED BORON (B) (UG/L) (01020)	TOTAL CADMIUM (CD) (UG/L) (01027)	SUSPENDED CADMIUM (CD) (UG/L) (01026)	DISSOLVED CADMIUM (CD) (UG/L) (01025)	TOTAL CHROMIUM (CR) (UG/L) (01034)	SUSPENDED CHROMIUM (CR) (UG/L) (01031)	DISSOLVED CHROMIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	SUSPENDED COBALT (CO) (UG/L) (01036)
DEC											
08...	--	--	80	--	--	--	--	--	--	--	--
MAR											
02...	--	4	70	--	--	3	--	--	0	--	--
MAY											
23...	2	4	60	10	3	7	60	60	0	<50	<50
JUN											
02...	0	4	60	10	8	2	60	50	10	50	50
17...	--	--	60	--	--	--	--	--	--	--	--

DATE	DISSOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	SUSPENDED COPPER (CU) (UG/L) (01041)	DISSOLVED COPPER (CU) (UG/L) (01040)	DISSOLVED IRON (FE) (UG/L) (01046)	TOTAL IRON (FE) (UG/L) (01045)	TOTAL LEAD (PB) (UG/L) (01051)	SUSPENDED LEAD (PB) (UG/L) (01050)	DISSOLVED LEAD (PB) (UG/L) (01049)	TOTAL MANGANESE (MN) (UG/L) (01055)	SUSPENDED MANGANESE (MN) (UG/L) (01054)
DEC											
08...	--	--	--	--	50	--	--	--	--	--	--
MAR											
02...	--	--	--	24	170	--	--	--	5	--	--
MAY											
23...	0	90	76	14	130	87000	200	190	11	2200	2200
JUN											
02...	0	70	67	3	0	64000	100	95	5	1700	1600
17...	--	--	--	--	30	--	--	--	--	--	--

06881000 BIG BLUE RIVER NEAR CRETE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DISSOLVED MANGANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUSPENDED MERCURY (HG) (UG/L) (71895)	DISSOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELENIUM (SE) (UG/L) (01147)	SUSPENDED SELENIUM (SE) (UG/L) (01146)	DISSOLVED SELENIUM (SE) (UG/L) (01145)	DISSOLVED SILVER (AG) (UG/L) (01075)	TOTAL ZINC (ZN) (UG/L) (01092)	SUSPENDED ZINC (ZN) (UG/L) (01091)	DISSOLVED ZINC (ZN) (UG/L) (01090)
DEC 08...	260	--	--	--	--	--	--	--	--	--	--
MAR 02...	190	.2	.2	.0	--	--	3	0	--	--	550
MAY 23...	20	.0	.0	.0	1	0	1	0	330	320	10
JUN 02...	100	.1	.1	.0	3	2	1	0	280	260	20
17...	30	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DISSOLVED PCB (UG/L) (39517)	DISSOLVED ALDRIN (UG/L) (39331)	DISSOLVED CHLORDANE (UG/L) (39352)	DISSOLVED DDD (UG/L) (39361)	DISSOLVED DDE (UG/L) (39366)	DISSOLVED DDT (UG/L) (39371)	DISSOLVED DIAZINON (UG/L) (39572)	DISSOLVED DIELDRIN (UG/L) (39381)	DISSOLVED ENDRIN (UG/L) (39391)
MAY 23...	1240	.0	.00	.0	.00	.00	.00	.05	.01	.00
JUN 02...	1050	.0	.00	.0	.00	.00	.00	.02	.01	.00
AUG 19...	1045	.0	.00	.0	.00	.00	.00	.06	.00	.00

DATE	DISSOLVED HEPTACHLOR (UG/L) (39411)	DISSOLVED HEPTACHLOR EPOXIDE (UG/L) (39421)	DISSOLVED LINDANE (UG/L) (39341)	DISSOLVED MALATHION (UG/L) (39532)	DISSOLVED METHYL PARATHION (UG/L) (39602)	DISSOLVED PARATHION (UG/L) (39542)	DISSOLVED TOXAPHENE (UG/L) (39401)	DISSOLVED 2,4-D (UG/L) (39732)	DISSOLVED 2,4,5-T (UG/L) (39742)	DISSOLVED SILVEX (UG/L) (39762)
MAY 23...	.00	.00	.00	.00	.00	.00	0	.10	.05	.00
JUN 02...	.00	.00	.00	.00	.00	.00	0	.03	.03	.00
AUG 19...	.00	.00	.00	.00	.00	.01	0	.06	.01	.00

06881000 BIG BLUE RIVER NEAR CRETE, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.5	15.5	10.0	7.0	2.0	0.5	0.0	0.0	1.0	1.0	5.0	1.0
2	20.5	17.0	10.0	8.5	2.0	1.0	0.0	0.0	3.0	1.0	2.5	1.5
3	20.0	18.0	9.5	6.5	3.0	1.0	0.5	0.0	4.0	1.0	3.0	2.5
4	19.5	17.0	7.5	4.5	2.5	0.5	1.0	0.0	4.0	1.5	2.5	1.5
5	17.0	15.0	6.0	3.0	1.5	1.5	1.0	0.0	4.5	1.5	5.0	0.0
6	16.5	13.0	6.0	4.0	1.5	0.5	2.0	0.0	3.0	1.5	5.0	1.5
7	14.5	12.0	5.5	3.5	1.0	0.5	2.0	0.5	3.5	1.5	7.0	3.0
8	13.0	10.5	5.5	2.5	0.5	0.5	1.0	0.0	5.0	1.5	9.5	5.5
9	14.5	11.5	7.5	5.0	3.0	0.5	0.5	0.0	5.5	2.0	11.0	7.5
10	14.5	12.5	7.0	4.5	1.5	0.5	0.5	0.0	5.0	2.0	11.0	8.5
11	15.0	13.5	5.5	2.5	1.0	0.5	0.5	0.0	4.5	1.5	10.5	10.0
12	15.0	14.0	4.0	1.0	2.0	0.5	0.0	0.0	4.5	1.5	10.0	9.0
13	14.5	14.0	3.5	1.0	2.0	0.5	0.5	0.0	3.0	1.5	9.0	6.5
14	14.5	13.5	3.5	1.0	2.5	0.5	1.5	0.0	3.5	1.5	12.0	8.0
15	14.0	12.5	4.0	1.0	2.5	0.5	0.5	0.0	2.5	1.0	12.5	9.5
16	13.0	9.5	4.5	1.0	2.5	0.5	0.0	0.0	2.0	1.5	12.0	8.0
17	10.0	7.5	4.5	1.0	3.0	1.0	0.0	0.0	5.5	1.5	13.0	9.0
18	9.0	7.5	5.5	2.0	2.5	0.5	0.0	0.0	5.0	1.5	12.5	9.0
19	8.5	7.0	5.5	4.5	1.0	0.0	0.5	0.0	3.0	1.0	12.0	6.5
20	8.5	5.0	5.5	3.5	1.5	0.0	3.0	0.0	3.5	1.0	8.0	5.0
21	9.0	6.5	4.5	2.5	1.0	0.5	3.0	0.5	4.5	1.0	9.5	6.5
22	8.5	6.0	5.0	1.0	1.5	0.5	2.0	0.5	4.5	1.5	11.0	7.0
23	9.0	8.5	3.5	1.5	1.5	0.5	3.0	0.5	3.5	2.0	11.5	7.5
24	9.0	7.5	4.5	1.5	2.0	0.5	3.5	1.5	5.0	1.5	13.0	8.5
25	8.0	6.0	5.0	3.0	2.0	0.5	3.5	1.0	4.0	1.5	12.5	10.0
26	7.5	7.0	5.0	3.0	2.0	0.5	3.0	1.5	3.0	1.5	13.0	11.0
27	6.0	4.5	3.0	1.0	3.0	1.0	3.5	1.0	5.5	1.0	15.5	11.5
28	7.0	5.5	1.0	1.0	1.5	0.5	1.5	1.0	5.5	1.0	16.0	13.0
29	6.5	6.0	1.0	1.0	0.5	0.5	1.0	1.0	---	---	13.0	9.0
30	9.0	6.5	1.0	1.0	1.0	0.0	1.0	1.0	---	---	12.0	8.0
31	9.0	7.0	---	---	0.5	0.0	1.0	1.0	---	---	9.5	6.0
MONTH	20.5	4.5	10.0	1.0	3.0	0.0	3.5	0.0	5.5	1.0	16.0	0.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	9.0	20.5	16.5	22.0	20.5	26.0	20.0	28.0	20.5	24.5	20.0
2	12.0	10.0	20.5	18.5	22.5	21.0	27.5	22.0	28.0	21.5	24.0	20.5
3	11.5	7.0	21.5	18.0	22.5	21.5	30.0	23.0	28.5	22.0	23.5	20.0
4	8.5	6.0	22.5	19.0	25.5	22.5	30.0	24.0	28.0	22.5	24.0	19.5
5	9.5	5.0	22.5	18.5	27.5	24.0	30.5	22.5	28.0	24.5	24.0	20.0
6	13.5	8.0	24.0	20.0	27.5	24.0	31.5	23.0	27.0	22.5	25.0	22.0
7	16.5	11.5	23.5	20.0	25.5	22.0	29.0	24.0	27.0	24.0	24.5	20.5
8	18.0	13.5	22.5	19.0	26.0	22.5	29.0	21.5	27.0	23.5	25.0	21.0
9	20.0	15.0	22.5	19.5	25.5	22.5	28.5	20.0	25.0	21.0	24.0	20.0
10	20.0	15.5	21.5	17.5	26.0	21.0	28.5	21.0	25.0	21.0	23.0	19.5
11	20.0	15.0	20.0	16.5	27.0	23.5	26.5	20.5	23.0	20.0	21.5	18.5
12	20.0	16.5	21.5	16.5	26.0	23.0	29.0	22.5	23.5	20.0	20.0	17.5
13	19.0	15.5	21.5	17.5	24.0	21.5	28.0	24.5	24.0	20.0	20.5	18.0
14	21.5	17.0	23.5	19.0	25.5	21.0	29.0	25.0	26.0	21.0	20.0	16.0
15	20.5	18.0	24.0	19.5	27.0	23.0	29.0	26.5	24.0	19.5	19.5	15.0
16	19.5	17.0	25.0	20.0	26.5	23.0	28.0	26.0	24.0	18.0	21.5	16.5
17	19.0	17.5	23.5	20.0	25.5	22.5	29.5	24.5	23.5	18.0	22.0	18.0
18	19.0	18.0	24.5	21.0	27.0	22.5	29.5	25.5	23.5	18.0	22.5	19.0
19	18.0	17.5	23.5	20.5	27.0	23.0	29.5	25.0	24.5	19.0	22.0	18.0
20	17.5	16.5	23.5	19.0	27.0	23.0	30.5	24.5	24.0	20.0	21.5	18.0
21	16.5	14.0	23.5	20.0	26.5	19.5	20.0	25.5	22.0	18.0	22.0	18.0
22	16.0	14.5	21.0	18.0	23.5	20.0	27.5	23.5	22.5	17.5	21.5	17.5
23	19.0	14.0	20.5	18.0	26.0	22.0	30.5	24.5	22.0	18.0	22.0	18.0
24	19.0	15.5	22.0	20.5	27.0	24.0	32.5	26.0	22.0	17.5	20.5	17.0
25	17.5	14.0	23.0	22.0	28.0	24.0	30.0	26.0	23.0	18.5	21.5	18.5
26	18.0	14.0	23.0	22.5	28.5	24.5	27.5	22.0	28.0	21.0	20.5	17.0
27	21.0	15.5	23.0	21.5	29.0	25.0	27.5	21.0	28.0	22.5	20.5	17.0
28	21.5	18.0	21.5	10.0	29.0	25.5	26.5	21.5	24.5	21.5	21.0	17.5
29	21.0	17.0	23.5	21.5	26.5	23.0	28.5	21.0	24.5	20.0	20.5	16.5
30	20.0	17.5	23.5	22.0	26.0	22.5	29.5	22.5	24.0	20.0	21.5	17.0
31	---	---	22.0	21.0	---	---	28.5	22.0	24.0	20.5	---	---
MONTH	21.5	5.0	25.0	10.0	29.0	19.5	32.5	20.0	28.5	17.5	25.0	15.0
YEAR	32.5	0.0										

06881000 BIG BLUE RIVER NEAR CRETE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SUSPENDED SEDIMENT (MG/L) (80154)	SUSPENDED SEDIMENT DISCHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)
MAY 23...	1240	1040	18.0	4660	13100	72	90	96	99	--	--
JUN 02...	1050	1060	21.0	3090	8840	72	87	93	100	--	--
AUG 19...	1045	1420	24.0	1760	6750	66	75	86	98	99	100

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	NUMBER OF SAMPLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)
APR 29...	--	--	--	--	--	0	87	88	96	100	--
MAY 23...	1240	1040	3	0	14	23	53	86	96	99	100
JUN 02...	1050	1060	4	--	0	4	40	70	94	100	--
AUG 19...	1045	1420	25	20	27	48	68	86	94	99	100

06881200 TURKEY CREEK NEAR WILBER, NE

LOCATION.--Lat 40°28'48", long 97°00'43", in NE1/4NE1/4 sec.19, T.6 N., R.4 E., Saline County, Hydrologic Unit 10270204, on left bank near downstream side of bridge on State Highway 41, 2.8 mi (4.5 km) west of Wilber.

DRAINAGE AREA.--460 mi² (1,191 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1959 to current year.

REVISED RECORDS.-- WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,322.00 ft (402.946 m) above mean sea level (Nebraska Department of Highways bench mark). Prior to July 10, 1970, at site 0.2 mi (0.3 km) downstream at same datum.

REMARKS.--Records fair except those for winter period, which are poor. Many diversions above station for irrigation.

AVERAGE DISCHARGE.--18 years, 77.8 ft³/s (2.203 m³/s), 56,370 acre-ft/yr (69.5 hm³/yr); median of yearly mean discharges, 57 ft³/s (1.614 m³/s), 41,300 acre-ft/yr (50.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,300 ft³/s (207 m³/s) Mar. 28, 1960, gage height, 14.92 ft (4.548 m) site then in use; maximum gage height, 17.92 ft (5.462 m) Oct. 12, 1973, from highwater mark. No flow Sept. 20, 21, 24, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 20	0100	1510	42.8	13.28	4.048
Sept. 17	1100	*1610	45.6	13.53	4.124

Minimum daily discharge, 0.02 ft³/s (0.0005 m³/s) Dec. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	.40	.20	.10	.50	5.9	14	6.2	276	17	12	24
2	13	.40	.20	.10	.70	7.6	17	6.6	336	14	10	23
3	8.7	.40	.30	.10	.70	5.6	11	7.0	264	11	11	21
4	5.6	.20	.30	.10	.60	2.5	11	8.2	137	8.7	11	440
5	3.0	.20	.20	.10	.50	4.4	9.4	29	88	7.2	8.9	445
6	1.9	.20	.08	.10	.50	4.1	8.1	14	48	6.4	8.1	141
7	.96	.20	.08	.10	.40	4.4	7.0	15	25	5.8	27	73
8	.82	.20	.12	.10	.50	5.6	5.8	10	21	10	114	57
9	.57	.30	.10	.10	.60	5.9	4.8	9.5	16	12	87	44
10	.48	.20	.08	.08	.76	6.4	4.5	7.9	13	9.7	82	33
11	.48	.04	.10	.10	1.4	7.6	3.9	6.0	11	25	67	27
12	.40	.04	.20	.20	2.2	9.0	3.8	5.3	10	48	57	62
13	.40	.10	.20	.20	2.1	8.0	3.9	4.4	9.6	38	26	606
14	.40	.20	.20	.20	2.1	6.7	4.9	4.4	9.3	47	331	947
15	.40	.20	.20	.04	3.2	5.0	5.3	5.9	9.6	41	516	1080
16	.40	.20	.20	.10	3.6	3.9	6.9	7.2	7.6	25	985	1240
17	.40	.38	.30	.20	5.0	3.4	32	8.4	7.3	17	889	1320
18	.40	.40	.40	.22	5.3	2.5	21	10	42	12	1020	441
19	.27	.45	.20	.20	6.1	2.9	16	12	43	8.7	1320	409
20	.27	.40	.06	.30	5.0	4.1	13	14	20	8.0	907	213
21	.27	.40	.02	.30	5.9	4.9	11	127	106	13	231	104
22	.27	.30	.20	.40	6.4	5.7	9.0	330	383	12	157	71
23	.27	.40	.10	.30	8.3	5.9	7.8	452	407	10	122	61
24	.27	.50	.30	.40	6.4	4.8	6.6	415	533	8.8	190	72
25	.13	.97	.20	.40	9.6	3.9	6.2	219	533	8.0	125	42
26	.13	.40	.10	.40	7.3	3.6	5.8	104	233	12	87	29
27	.13	.30	.20	.40	6.7	3.2	5.6	74	95	13	63	25
28	.27	.20	.20	.20	7.3	4.6	5.6	223	55	14	48	21
29	.48	.04	.13	.20	---	7.4	5.8	205	33	15	39	20
30	.57	.20	.10	.30	---	7.4	6.0	454	23	9.7	31	19
31	.40	---	.10	.40	---	8.9	---	268	---	11	27	---
TOTAL	60.04	8.82	5.37	6.44	99.66	165.8	272.7	3062.0	3794.4	498.0	7609.0	8110
MEAN	1.94	.29	.17	.21	3.56	5.35	9.09	98.8	126	16.1	245	270
MAX	18	.97	.40	.40	9.6	9.0	32	454	533	48	1320	1320
MIN	.13	.04	.02	.04	.40	2.5	3.8	4.4	7.3	5.8	8.1	19
AC-FT	119	17	11	13	198	329	541	6070	7530	988	15090	16090

CAL YR 1976 TOTAL 6365.68 MEAN 17.4 MAX 740 MIN .00 AC-FT 12630
WTR YR 1977 TOTAL 23692.23 MEAN 64.9 MAX 1320 MIN .02 AC-FT 46990

06881200 TURKEY CREEK NEAR WILBER, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966-70, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM (COL. PER 100 ML) (31616)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)
OCT											
07...	1220	.91	618	7.2	13.0	150	--	4.2	533	--	400
NOV											
16...	1109	.20	1700	6.9	3.5	25	8.6	4.6	--	<20	<10
DEC											
08...	1300	.12	1080	7.2	4.0	15	11.0	2.5	--	<3	8
JAN											
18...	1330	.22	1770	7.3	.5	20	8.2	1.9	--	90	28
FEB											
10...	1200	.78	938	7.2	.2	10	9.6	4.9	--	<10	660
MAR											
02...	1150	9.2	425	7.5	1.0	10	12.4	2.6	--	10	27
APR											
12...	1240	3.4	564	7.9	18.0	25	8.5	4.8	--	90	228
MAY											
03...	1140	7.1	522	7.6	18.0	65	--	6.4	--	1900	9500
JUN											
17...	1100	6.8	483	7.7	23.0	65	7.1	6.4	--	8700	1240
JUL											
05...	1230	7.2	418	7.7	27.0	210	8.1	2.8	--	900	--
AUG											
15...	1100	456	110	6.9	21.5	1600	7.5	6.9	--	B172000	--
SEP											
28...	1115	20	335	7.8	17.0	320	8.5	3.7	--	1530	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)
OCT										
07...	--	87	353	.48	.02	1.7	1.7	4.1	.61	.30
NOV										
16...	--	370	982	1.34	.07	.47	.54	3.0	.36	--
DEC										
08...	--	398	--	1.35	.01	.39	.40	3.5	.28	.28
JAN										
18...	--	360	945	1.29	.33	.28	.61	4.2	.31	--
FEB										
10...	--	220	549	.75	.44	.96	1.4	3.3	.25	--
MAR										
02...	--	29	--	.36	.02	.40	.42	.66	.21	.16
APR										
12...	--	68	398	.54	.08	.92	1.0	1.3	.60	--
MAY										
03...	--	32	318	.43	.08	.85	.93	1.2	.48	--
JUN										
17...	--	29	--	.40	.06	1.2	1.3	1.8	.54	.40
JUL										
05...	2700	32	251	.34	.21	1.3	1.5	3.3	.69	--
AUG										
15...	B444000	4.3	--	.09	.14	8.0	8.1	9.5	1.9	.43
SEP										
28...	2900	27	202	.27	.90	.60	1.5	2.4	.77	--

06881200 TURKEY CREEK NEAR WILBER, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)
DEC										
08...	1300	25	200	0	54	16	300	9.2	5.9	253
MAR										
02...	1150	35	150	8	47	8.9	29	1.0	5.3	178
JUN										
17...	1100	90	160	5	48	10	34	1.2	11	190
AUG										
15...	1100	480	30	0	8.2	2.2	5.6	.4	8.3	42

DATE	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)
DEC										
08...	0	208	78	.3	27	989	--	140	--	--
MAR										
02...	0	146	39	.2	16	262	4	50	1	0
JUN										
17...	0	160	48	.4	22	292	--	60	--	--
AUG										
15...	0	34	7.4	.3	9.6	67	3	70	1	0

DATE	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUS-PENDED MERCURY (HG) (UG/L) (71895)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)
DEC										
08...	--	300	--	200	--	--	--	--	--	--
MAR										
02...	6	70	3	110	.1	.1	.0	2	0	20
JUN										
17...	--	20	--	40	--	--	--	--	--	--
AUG										
15...	5	60	0	10	.2	.2	.0	0	0	6

06881500 BIG BLUE RIVER AT BEATRICE, NE

LOCATION.--Lat 40°15'22", long 96°44'47", in SW1/4NW1/4 sec.3, T.3 N., R.6 E., Gage County, Hydrologic Unit 10270202, at left upstream corner of 6th Street and U.S. Highway 77 bridge in Beatrice, 0.7 mi (1.1 km) south of the intersection of U.S. Highways 136 and 77, 1.2 mi (1.9 km) downstream from Indian Creek, and 3.1 mi (5.0 km) upstream from Bear Creek.

DRAINAGE AREA.--3,900 mi² (10,101 km²), of which about 3,830 mi² (9,920 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1910 to September 1915, (monthly discharge only for some periods , published in WSP 1310), 1954, 1960-65, 1967-69, 1971-74 (discharge measurements only), October 1974 to current year. Gage-height records collected 1905-1910, 1916-1974 are in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 1,219.90 ft (371.826 m) above mean sea level. October 1910 to September 1915 non-recording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft³/s (935 m³/s) July 23, 1911, gage height, 26.00 ft (7.925 m); minimum daily, 20 ft³/s (0.57 m³/s) Aug. 15, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since 1902, 49,100 ft³/s (1,390 m³/s) October 12, 1973, gage height, 33.02 ft (10.064 m), from floodmark.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft³/s (113 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 16	1700	*7480	212	14.94	4.554
Sept. 3	1500	6270	178	13.53	4.124

Minimum daily discharge, 36 ft³/s (1.02 m³/s) on Nov. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	91	53	62	78	134	153	158	1840	253	111	595
2	129	94	51	70	90	115	153	155	1290	193	86	2720
3	93	80	56	74	96	150	157	176	1370	100	94	5020
4	124	87	56	70	90	107	166	165	1250	216	129	4320
5	83	95	59	64	80	133	126	195	926	149	110	4450
6	104	96	72	70	80	108	149	212	730	102	126	4680
7	102	109	79	72	74	134	152	186	593	58	112	4680
8	65	77	63	68	76	105	149	174	473	65	505	4420
9	107	74	39	54	82	133	147	165	398	72	979	3840
10	67	119	63	60	92	100	141	165	344	68	1050	2900
11	101	62	64	66	98	139	111	160	308	131	1070	1070
12	66	70	70	70	96	115	141	162	276	222	1220	2140
13	91	40	57	72	100	141	145	155	249	240	716	1990
14	72	54	66	72	98	149	105	150	231	337	515	1700
15	102	62	79	64	92	146	136	167	213	299	3040	1420
16	63	82	84	56	110	109	144	106	197	242	5550	1410
17	74	90	82	62	130	137	475	152	192	221	4560	1830
18	95	102	95	64	125	138	518	111	171	251	2950	2710
19	67	87	99	66	120	105	379	155	123	179	2340	2220
20	75	87	100	66	116	134	306	155	201	154	2420	2050
21	83	87	90	66	116	111	265	196	252	144	2200	1180
22	86	84	84	64	130	137	240	481	366	99	983	586
23	92	87	96	64	145	161	214	1660	956	94	707	447
24	78	64	102	66	159	108	188	1720	614	121	588	616
25	92	70	74	68	137	137	170	1520	615	88	506	530
26	94	78	99	68	161	140	159	1320	612	85	571	384
27	94	43	107	64	149	96	159	1030	448	63	548	317
28	84	36	106	60	110	161	161	833	419	87	468	288
29	93	43	94	70	---	129	159	1690	384	153	405	275
30	97	46	70	74	---	149	158	1320	331	169	365	263
31	96	---	60	70	---	152	---	1380	---	111	327	---
TOTAL	2805	2296	2369	2056	3026	3993	5826	16352	15962	4846	35351	61087
MEAN	90.5	76.5	76.4	66.3	108	129	194	527	532	156	1140	2036
MAX	136	119	107	74	161	161	518	1720	1840	337	5550	5020
MIN	63	36	39	54	74	96	105	106	123	58	86	263
AC-FT	5560	4550	4700	4080	6000	7920	11560	32430	31660	9610	70120	121200

CAL YR 1976 TOTAL 63489 MEAN 173 MAX 1780 MIN 20 AC-FT 125900
WTR YR 1977 TOTAL 155969 MEAN 427 MAX 5550 MIN 36 AC-FT 309400

06881502 BIG BLUE RIVER BELOW BEATRICE, NE

LOCATION.--Lat 40°14'55", long 96°42'46", in SE1/4SE1/4 sec.2, T.3 N., R.6 E., Gage County, Hydrologic Unit 10270202, at pipeline bridge about 2.0 miles downstream from bridge on U.S. Highway 77, about 1.3 miles southeast of Beatrice.

PERIOD OF RECORD.--Water year 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)	STREPTOCOCCI (COLONIES PER 100 ML) (31679)
NOV										
03...	1010	68	765	8.9	8.5	30	8.7	38	2500	400
17...	1030	73	855	8.1	1.0	6	11.8	4.2	4000	200
DEC										
09...	1330	43	898	7.4	1.0	10	17.4	9.2	20000	1540
JAN										
20...	1015	66	845	7.8	.0	5	10.1	8.8	35000	6200
FEB										
09...	0945	86	790	6.9	.5	15	11.9	5.8	--	--
MAR										
02...	0950	89	672	7.4	2.0	10	9.6	1.3	4500	183
APR										
13...	0830	150	--	7.7	16.5	15	12.8	12	780	160
MAY										
04...	1300	162	660	8.2	27.0	60	6.4	8.4	3700	1360
JUN										
22...	1130	273	489	7.7	21.0	310	6.6	6.0	9600	9000
JUL										
07...	1120	57	660	7.1	28.0	65	8.0	10	17900	--
AUG										
16...	1000	7260	125	7.0	21.0	680	5.4	7.0	30000	--
SEP										
29...	1500	277	513	7.5	18.0	90	6.6	14	1100	--

DATE	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML) (31673)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)
NOV										
03...	--	63	491	.67	.01	1.8	1.8	3.7	1.1	--
17...	--	85	523	.71	.00	1.6	1.6	3.5	1.1	--
DEC										
09...	--	82	--	.74	.78	.52	1.3	3.7	.93	.72
JAN										
20...	--	56	501	.68	1.4	.00	1.4	4.3	.97	--
FEB										
09...	--	62	491	.67	1.1	.00	1.1	3.8	.95	--
MAR										
02...	--	52	--	.54	.29	.66	.95	2.6	.71	.63
APR										
13...	--	53	416	.57	.32	2.0	2.3	2.7	.81	--
MAY										
04...	--	58	420	.57	.01	1.9	1.9	4.4	.94	--
JUN										
22...	--	56	--	.40	.20	2.5	2.7	6.7	1.7	.60
JUL										
07...	5000	76	389	.53	.23	1.5	1.7	4.2	1.1	--
AUG										
16...	B112000	3.7	--	.47	.22	5.4	5.6	6.6	1.2	.30
SEP										
29...	900	38	316	.43	.55	.85	1.4	2.7	.71	--

06881502 BIG BLUE RIVER BELOW BEATRICE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)
DEC 09...	1330	8	270	25	82	16	85	2.2	9.0	300
MAR 02...	0950	11	210	2	62	13	58	1.7	6.9	251
JUN 22...	1130	70	140	30	41	8.4	38	1.4	18	130
AUG 16...	1000	420	25	0	7.0	1.8	4.0	.4	6.3	30

DATE	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)
DEC 09...	0	246	93	.7	28	504	--	110	--	--
MAR 02...	0	206	59	.3	20	395	3	70	1	0
JUN 22...	0	110	57	.4	20	295	--	80	--	--
AUG 16...	0	25	5.6	.2	8.0	52	1	50	1	0

DATE	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUS-PENDED MERCURY (HG) (UG/L) (71895)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)
DEC 09...	--	40	--	260	--	--	--	--	--	--
MAR 02...	3	30	3	160	.2	.2	.0	3	0	10
JUN 22...	--	20	--	10	--	--	--	--	--	--
AUG 16...	5	100	3	8	.3	.3	.0	0	0	20

06882000 BIG BLUE RIVER AT BARNESTON, NE

LOCATION.--Lat 40°03'11", long 96°35'16", in SE1/4NW1/4 sec.13, T.1 N., R.7 E., Gage County, Hydrologic Unit 10270202, near left bank in tailrace of powerplant, 0.8 mi (1.3 km) northwest of Barneston, 2 mi (3 km) upstream from Plum Creek, and 5 mi (8 km) upstream from Nebraska-Kansas State line.

DRAINAGE AREA.--4,444 mi² (11,510 km²), of which about 4,370 mi² (11,318 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--May 1932 to current year.

REVISED RECORDS.--WSP 896: 1932, 1935. WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,164.2 ft (354.85 m) above mean sea level. Prior to June 9, 1941, water-stage recorder at site 1 mi (2 km) downstream at datum 0.44 ft (0.134 m) lower. June 9 to Nov. 17, 1941, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period, which are poor. Low flow regulated by powerplant at Barneston, which has pondage of about 1,500 acre-ft (1.85 hm³). No large tributaries between station and Nebraska-Kansas State line. Some pump diversions for irrigation above station. Natural flow of stream affected by ground-water withdrawals for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--45 years, 756 ft³/s (21.41 m³/s), 547,700 acre-ft/yr (0.675 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,700 ft³/s (1,630 m³/s) June 9, 1941, gage height, 34.3 ft (10.45 m); minimum daily, 1 ft³/s (0.028 m³/s) Nov. 30, 1945.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10,000 ft³/s (283 m³/s) and maximum(*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 16	1900	10900	309	15.92	4.852
Sept. 12	0900	*12700	360	17.42	5.310

Minimum daily discharge, 32 ft³/s (0.91 m³/s) Dec. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	341	94	64	39	340	294	68	106	1500	360	90	324
2	108	110	229	39	119	68	84	197	1200	251	87	1770
3	105	115	63	221	98	77	96	184	1400	357	85	4450
4	112	87	60	36	70	258	421	112	900	335	89	5100
5	106	84	57	40	62	87	74	289	520	455	102	5300
6	112	83	51	39	60	87	239	202	746	324	184	5250
7	104	82	50	223	64	275	81	98	535	102	239	4990
8	100	82	50	41	270	70	223	108	449	101	317	4900
9	92	95	226	47	48	79	82	301	387	98	1110	4260
10	87	81	47	49	49	256	93	226	348	91	1150	3520
11	87	81	47	275	53	71	227	102	198	88	1120	1570
12	87	79	47	64	58	75	200	253	117	103	1440	8830
13	86	79	47	58	60	84	71	99	295	176	990	5710
14	83	79	47	57	250	342	201	102	337	331	725	3670
15	79	79	66	62	60	65	140	107	160	492	2790	2340
16	76	89	232	62	64	302	61	194	261	270	7630	2230
17	76	83	34	150	210	70	129	107	131	238	7040	2200
18	76	93	34	78	79	145	569	199	132	362	3750	3090
19	75	82	60	76	79	68	415	146	141	354	2530	2830
20	74	97	228	78	83	76	334	100	302	101	2350	2530
21	73	94	36	76	259	313	322	182	137	105	2690	1910
22	72	78	35	76	84	69	314	624	314	102	1400	1040
23	72	78	208	76	105	82	232	1330	674	102	874	713
24	72	91	35	326	257	285	106	1770	803	100	786	737
25	97	90	35	94	100	69	220	1470	775	98	629	909
26	92	86	45	68	281	79	116	1350	696	91	766	678
27	92	87	243	56	55	86	100	999	622	90	849	445
28	108	85	32	56	91	344	99	932	490	86	1020	402
29	94	66	36	56	---	80	182	589	455	74	793	270
30	94	61	225	60	---	89	106	553	336	76	821	292
31	94	---	39	62	---	335	---	614	---	83	759	---
TOTAL	3026	2570	2708	2740	3408	4680	5605	13645	15341	5998	44805	82320
MEAN	97.6	85.7	87.4	88.4	122	151	187	440	511	193	1445	2744
MAX	341	115	243	326	340	344	569	1770	1500	492	7630	8830
MIN	72	61	32	36	48	65	61	98	117	76	85	270
AC-FT	6000	5100	5370	5430	6760	9280	11120	27060	30430	11900	88870	163300

CAL YR 1976 TOTAL 88807 MEAN 243 MAX 5570 MIN 32 AC-FT 176100
WTR YR 1977 TOTAL 186846 MEAN 512 MAX 8830 MIN 32 AC-FT 370600

06883000 LITTLE BLUE RIVER NEAR DEWEESE, NE

LOCATION.--Lat 40°19'50", long 98°04'00", in SW1/4NW1/4 sec.13, T.5 N., R.7 W., Nuckolls County, Hydrologic Unit 10270206, on right bank 10 ft (3 m) downstream from bridge on State Highway 14, 1 mi (2 km) upstream from Walnut Creek, 3.2 mi (5.1 km) southeast of Deweese, and 6 mi (10 km) northwest of Angus.

DRAINAGE AREA.--979 mi² (2,536 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1953 to September 1972, Oct. 1976 to current year.

REVISED RECORDS.--WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,632.67 ft (497.638 m) above mean sea level. Prior to May 16, 1957, non-recording gage at present site and datum; May 16, 1957, to Sept. 30, 1972, at site 1,500 ft (460 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station. Periodic temperature and conductance measurements are published in tables for water quality at miscellaneous sites.

AVERAGE DISCHARGE.--22 years, 145 ft³/s (4.106 m³/s), 105,100 acre-ft/yr (0.130 km³/yr); median of yearly mean discharges, 120 ft³/s (3.398 m³/s), 86,900 acre-ft/yr (0.107 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,100 ft³/s (711 m³/s) Aug. 31, 1969, gage height, 18.57 ft (5.660 m), at previous site; minimum daily, 6.4 ft³/s (0.18 m³/s) Aug. 9, 1970.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 26, 1951, reached a stage of 14.9 ft (4.54 m), from information by local residents, discharge, 16,000 ft³/s (453 m³/s), based on records for former station at Angus.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 22	0230	*6000	170	11.26	3.432
July 25	1330	1870	53.0	6.37	1.942

Minimum daily discharge, 34 ft³/s (0.96 m³/s) Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	47	42	45	42	55	63	78	239	90	52	127
2	55	47	45	47	46	58	66	82	171	91	57	107
3	52	47	50	52	46	61	63	118	112	106	61	99
4	60	47	48	52	48	56	90	108	94	119	208	91
5	59	47	48	52	50	57	87	91	82	95	226	90
6	57	49	47	56	50	57	75	86	78	86	268	86
7	55	48	48	60	54	59	71	178	70	83	287	76
8	49	47	50	58	58	60	66	288	68	80	286	70
9	47	48	50	52	62	61	66	282	66	85	268	66
10	46	48	50	50	62	63	61	972	65	86	227	63
11	46	48	54	50	63	70	61	389	65	116	198	61
12	42	49	54	46	62	69	78	205	65	120	153	245
13	43	50	56	48	63	71	600	129	72	116	117	728
14	44	51	58	50	62	66	171	97	278	103	100	611
15	43	49	60	45	60	66	92	88	106	167	85	389
16	42	49	56	36	60	61	93	94	77	115	168	336
17	43	49	56	38	62	60	79	82	608	98	185	245
18	44	49	54	34	60	61	78	78	456	73	128	176
19	44	49	53	38	60	70	81	81	167	65	100	127
20	45	49	42	50	60	65	151	79	99	67	89	100
21	45	48	42	56	60	61	765	181	2190	72	553	82
22	45	49	46	60	61	61	559	315	4130	80	918	72
23	46	49	46	60	62	61	298	236	1290	76	877	67
24	46	49	48	56	60	61	168	173	567	73	277	62
25	46	50	50	56	57	62	111	123	300	700	384	60
26	48	52	55	58	56	61	95	108	196	193	1220	59
27	45	44	49	65	56	63	88	95	183	78	1120	57
28	46	36	49	58	56	75	83	88	121	67	590	57
29	46	38	51	50	---	74	81	85	107	61	321	59
30	45	40	48	38	---	68	79	109	103	59	213	58
31	46	---	48	40	---	61	---	236	---	58	168	---
TOTAL	1487	1422	1553	1554	1600	1950	4507	4900	12155	3492	9426	4522
MEAN	48.0	47.4	50.1	50.1	57.1	62.9	150	158	405	113	304	151
MAX	60	52	60	65	63	75	765	972	4130	700	1220	728
MIN	42	36	42	34	42	55	61	78	65	58	52	57
AC-FT	2950	2820	3080	3080	3170	3870	8940	9720	24110	6930	18700	8970

CAL YR 1976 TOTAL 22709.4 MEAN 62.0 MAX 367 MIN 7.0 AC-FT 45040
WTR YR 1977 TOTAL 48568.0 MEAN 133 MAX 4130 MIN 34 AC-FT 96330

06883000 LITTLE BLUE RIVER NEAR DEWEESE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-1970, 1975-1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE (DEG C) (00010)
OCT , 1976					MAY , 1977				
20...	1550	65	450	10.0	23...	1920	205	209	25.0
NOV					JUN				
22...	1605	51	435	2.5	20...	1715	96	383	26.0
JAN , 1977					JUL				
17...	1730	38	450	.0	18...	1600	72	378	30.0
FEB					AUG				
17...	1125	61	486	5.0	16...	1535	203	223	23.0
MAR					SEP				
10...	1530	62	449	13.0	26...	1530	60	451	22.0
APR									
05...	1630	108	310	20.0					

06883570 LITTLE BLUE RIVER NEAR ALEXANDRIA, NE

LOCATION.--Lat 40°12'27", long 97°23'23", in SE1/4SE1/4 sec.23, T.3 N., R.1 W., Thayer County, Hydrologic Unit 10270206, on left bank 750 ft (229 m) upstream from bridge on State Highway 76, 2.7 mi (4.3 km) south of Alexandria, 9.8 mi (15.8 km) downstream from Dry Creek, and 5.7 mi (9.2 km) upstream from Big Sandy Creek.

DRAINAGE AREA.--1,557 mi² (4,033 km²).

PERIOD OF RECORD.--July 1959 to September 1972 (published as "near Gilead"), April 1974 (corrected) to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,359.29 ft (414.312 m) above mean sea level. July 1959 to Sept. 30, 1972 at site 2.3 mi (3.7 km) upstream at datum 12.0 ft (3.66 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--16 years (1959-72, 1974-76), 232 ft³/s (6.570 m³/s), 168,100 acre-ft/yr (0.207 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,600 ft³/s (725 m³/s) Mar. 28, 1960, gage height, 17.30 ft (5.273 m), site and datum then in use; minimum daily, 13 ft³/s (0.37 m³/s) Aug. 5, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 20	0630	2240	63.4	11.27	3.435	Aug. 4	1200	3350	94.9	12.66	3.859
June 13	1730	3440	97.4	12.77	3.892	Aug. 16	1130	5810	165	15.15	4.618
June 18	1830	2130	60.3	11.08	3.377	Sept. 13	1230	5760	163	15.11	4.606
June 23	1200	*6240	177	15.54	4.737						

Minimum daily discharge, 42 ft³/s (1.19 m³/s) Jan. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	77	66	56	56	82	99	88	228	207	91	312
2	82	78	62	56	60	86	93	92	279	198	100	281
3	72	75	64	60	64	88	91	276	267	186	98	281
4	67	64	66	58	76	88	106	170	209	168	2050	376
5	136	63	66	56	72	80	102	168	174	175	670	268
6	166	62	68	58	72	82	117	124	153	150	856	225
7	111	65	56	58	75	85	122	111	139	146	419	220
8	86	66	65	58	80	79	116	434	130	227	336	206
9	75	66	50	56	86	72	112	337	126	171	378	186
10	69	69	64	54	90	75	107	203	120	133	340	169
11	68	70	60	58	92	88	101	405	114	135	430	220
12	62	66	62	54	92	96	100	342	116	126	471	4490
13	60	50	66	56	96	101	106	286	1330	165	300	4880
14	59	66	68	56	98	111	320	230	2240	181	236	1460
15	58	70	68	50	96	93	277	178	1130	151	280	896
16	58	74	70	45	96	83	161	169	389	179	4330	569
17	60	77	72	42	98	81	108	150	672	184	2290	588
18	61	80	78	42	106	77	96	143	674	162	674	500
19	61	82	74	44	110	79	88	160	1080	136	330	330
20	62	80	64	47	106	87	96	1380	884	107	228	253
21	63	82	50	52	110	90	100	1520	563	92	230	213
22	65	85	60	54	116	84	416	1400	3880	95	657	182
23	68	80	66	50	120	83	517	870	5270	100	1220	198
24	72	86	64	60	110	83	311	815	1760	118	810	151
25	73	88	76	60	100	80	212	295	955	120	481	131
26	74	88	76	60	96	87	109	216	587	398	397	128
27	73	80	78	60	86	90	120	324	424	365	1050	116
28	72	50	86	60	80	111	106	334	325	172	1060	109
29	74	54	70	54	---	129	96	219	266	137	709	113
30	77	60	60	56	---	116	89	188	230	122	491	118
31	77	---	45	58	---	109	---	179	---	103	360	---
TOTAL	2357	2159	2016	1706	2522	2764	4606	11390	24290	5082	21780	18294
MEAN	76.0	72.0	65.0	55.0	90.1	89.2	154	368	810	164	703	610
MAX	166	88	86	60	120	129	517	1520	5270	398	4330	4880
MIN	58	50	45	42	56	72	88	88	114	92	91	109
AC-FT	4680	4280	3990	3380	5000	5480	9140	22610	48180	10080	43200	36290

CAL YR 1976 TOTAL 41580 MEAN 114 MAX 2040 MIN 16 AC-FT 82490
WTR YR 1977 TOTAL 98972 MEAN 271 MAX 5270 MIN 42 AC-FT 196300

06884000 LITTLE BLUE RIVER NEAR FAIRBURY, NE

LOCATION.--Lat 40°06'54", long 97°10'13", in NW1/4NE1/4 sec.26, T.2 N., R.2 E., Jefferson County, Hydrologic Unit 10270207, on right bank 20 ft (6 m) downstream from bridge on State Highway 15, 0.8 mi (1.3 km) south of Fairbury, and 5.2 mi (8.4 km) upstream from Rose Creek.

DRAINAGE AREA.--2,350 mi² (6,087 km²).

PERIOD OF RECORD.--May 1908 to September 1915, October 1928 to September 1956 (published as "near Endicott"), October 1956 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1086: 1941(M). WSP 1390: 1908(M), 1912, 1915, 1935, 1939, 1945(M). WSP 1510: 1947 (calendar year figures only). WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,282.19 ft (390.812 m) above mean sea level. May 23, 1908, to Sept. 30, 1915, nonrecording gage at present site at different datum. Apr. 26, 1929, to Sept. 24, 1957, nonrecording gage or water-stage recorder at site 3.5 mi (5.6 km) downstream at various datums.

REMARKS.--Records fair except those for winter period, which are poor. Some regulation at low stage by powerplants above station. Natural flow of stream affected by ground-water withdrawals for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--56 years, 368 ft³/s (10.42 m³/s), 266,600 acre-ft/yr (0.329 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,800 ft³/s (1,070 m³/s) Oct. 12, 1973, gage height, 18.96 ft (5.779 m); minimum daily, 14 ft³/s (0.40 m³/s) Nov. 22, 1929, discharge measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 21	2300	3640	103	6.81	2.076
June 23	2000	6870	195	9.48	2.890
Aug. 4	1800	5250	149	8.21	2.502
Aug. 16	2030	8290	235	10.49	3.197
Sept. 12	0800	*10500	297	11.75	3.581
Sept. 18	0130	3210	90.9	6.23	1.899

Minimum daily discharge, 56 ft³/s (1.59 m³/s) Dec. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185	88	74	70	94	112	155	153	417	345	207	371
2	142	91	74	76	88	118	148	162	403	309	188	348
3	112	77	77	74	92	127	139	361	330	386	182	311
4	102	87	79	76	93	122	162	324	267	336	3320	370
5	110	91	84	78	96	115	154	252	216	276	3380	324
6	291	82	90	80	98	112	152	208	188	255	1780	260
7	231	85	78	84	96	111	160	182	170	240	996	213
8	175	96	60	80	98	113	152	231	160	252	665	185
9	135	98	72	76	106	115	142	403	145	294	582	171
10	118	98	80	74	111	116	133	289	138	240	529	158
11	108	100	72	78	106	136	127	288	130	255	945	173
12	98	93	76	84	122	143	126	355	132	258	1100	8250
13	93	80	88	84	124	148	125	297	397	264	582	7010
14	90	89	84	86	125	155	171	240	2530	258	424	3120
15	85	98	92	86	130	148	326	203	1820	243	842	1890
16	79	110	98	76	125	131	235	180	832	246	5560	1230
17	76	118	100	64	120	128	189	175	439	276	5680	1500
18	76	112	110	70	140	119	172	165	1380	255	2120	2110
19	76	118	110	74	145	116	165	157	1400	243	1090	840
20	75	102	80	82	155	131	153	1000	590	210	620	526
21	76	96	56	86	145	115	168	2330	518	180	546	392
22	80	96	62	86	153	129	182	3000	3400	168	562	315
23	81	114	80	90	155	126	543	1700	6140	168	1350	264
24	81	106	86	90	135	126	370	813	3050	172	1090	330
25	81	110	86	90	126	122	283	445	1540	190	705	234
26	82	108	96	89	121	122	236	340	996	216	523	228
27	84	77	92	90	111	122	200	351	755	572	836	204
28	83	62	94	92	111	165	177	1000	566	318	1120	192
29	86	64	84	94	---	196	163	640	459	400	863	186
30	91	68	78	96	---	166	157	434	386	366	581	183
31	92	---	66	96	---	148	---	349	---	255	442	---
TOTAL	3374	2814	2558	2551	3321	4053	5765	17027	29894	8446	39410	31888
MEAN	109	93.8	82.5	82.3	119	131	192	549	996	272	1271	1063
MAX	291	118	110	96	155	196	543	3000	6140	572	5680	8250
MIN	75	62	56	64	88	111	125	153	130	168	182	158
AC-FT	6690	5580	5070	5060	6590	8040	11430	33770	59290	16750	78170	63250

CAL YR 1976 TOTAL 66622 MEAN 182 MAX 2780 MIN 56 AC-FT 132100
WTR YR 1977 TOTAL 151101 MEAN 414 MAX 8250 MIN 56 AC-FT 299700

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS

LOCATION.--Lat 39°58'48", long 97°00'16", NE1/4SW1/4 sec.8, T.1 S., R.4 E., Washington County, Hydrologic Unit 10270207, on right bank and 2 ft (1 m) downstream from bridge on county road, 0.6 mi (1.0 km) west of Hollenberg, Ks., and 1.75 mi (2.82 km) downstream from Nebraska-Kansas State line.

DRAINAGE AREA.--2,752 mi² (7,128 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1973 to February 1974 (discharge measurements only), March 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,216.10 ft (370.667 m) above mean sea level.

REMARKS.--Records good except those for winter period, which are poor. Discharge measurements made prior to 1974 water year are published in table of miscellaneous sites in WDR KS-73.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 ft³/s (348 m³/s) Sept. 12, 1977, gage height, 14.72 ft (4.487 m); minimum daily, 40 ft³/s (1.13 m³/s) Dec. 17, 1975.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 12, 1973, reached a stage of 23.07 ft (7.032 m), present datum, from floodmark, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 22	0330	4310	122	9.31	2.838	Aug. 17	0600	9100	258	12.94	3.944
June 24	0200	7020	199	11.60	3.536	Sept. 12	1800	*12300	348	*14.72	4.487
Aug. 5	0100	5790	164	10.67	3.252	Sept. 18	0800	3080	87.2	7.95	2.423

Minimum daily discharge, 56 ft³/s (1.59 m³/s) Dec. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	222	111	96	90	110	145	174	174	420	359	226	472
2	172	109	90	98	114	150	166	170	520	387	193	449
3	143	107	94	106	120	164	163	905	408	800	186	442
4	133	102	100	104	125	149	188	871	336	467	2980	640
5	117	107	104	100	120	137	176	458	263	348	4540	504
6	179	109	110	94	114	140	163	313	220	289	2340	349
7	281	109	82	98	108	135	166	243	196	267	1480	291
8	205	109	56	100	120	133	166	211	179	318	1000	263
9	160	113	80	96	130	132	155	520	160	339	727	246
10	135	116	102	100	140	131	147	481	153	285	627	217
11	118	113	90	100	150	154	139	328	145	300	766	195
12	106	104	96	100	150	163	137	469	155	298	1380	9050
13	99	100	102	106	145	162	139	411	152	288	788	9070
14	96	94	108	110	160	162	145	342	2200	291	506	4550
15	90	106	110	104	155	170	350	268	2100	252	722	2220
16	90	118	108	96	150	156	355	227	1360	266	4650	1530
17	90	131	110	80	160	144	256	223	588	291	7870	1240
18	90	130	118	86	185	136	215	197	1130	286	3570	2470
19	94	128	120	88	210	134	220	212	1820	273	1650	1180
20	94	128	104	90	200	147	195	435	1100	250	946	742
21	94	121	70	96	220	145	194	2710	538	203	749	546
22	96	109	84	94	249	143	208	4000	2230	178	766	448
23	98	122	94	94	238	139	492	2350	6000	196	1480	344
24	98	120	108	98	209	131	577	1300	4510	183	1690	451
25	100	125	125	92	190	129	399	700	1950	193	1370	385
26	102	125	120	94	173	131	308	507	1330	212	809	298
27	102	110	130	100	158	132	255	409	897	463	749	265
28	102	80	140	108	149	189	218	1030	693	399	1270	254
29	102	86	120	110	---	250	191	1200	526	339	1090	255
30	111	92	104	114	---	202	178	669	430	520	760	241
31	111	---	80	108	---	183	---	408	---	311	578	---
TOTAL	3830	3334	3155	3054	4452	4718	6835	22741	32709	9851	48458	39607
MEAN	124	111	102	98.5	159	152	228	734	1090	318	1563	1320
MAX	281	131	140	114	249	250	577	4000	6000	800	7870	9070
MIN	90	80	56	80	108	129	137	170	145	178	186	195
AC-FT	7600	6610	6260	6060	8830	9360	13560	45110	64880	19540	96120	78560

CAL YR 1976 TOTAL 84383 MEAN 231 MAX 4170 MIN 56 AC-FT 167400
WTR YR 1977 TOTAL 182744 MEAN 501 MAX 9070 MIN 56 AC-FT 362500

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS.--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1972 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLI- FORM .7UM-MF (COL./ 100 ML) (31625)	STREP- TOCOCCI (COL- ONIES PER 100 ML) (31679)	FECAL STREP- TOCOCCI KF AGAR (COL. PER 100 ML) (31673)
NOV											
03...	1445	182	571	8.6	10.0	--	7.7	15	620	50	--
17...	1615	146	521	--	6.0	15	10.0	.8	733	268	--
DEC											
08...	1530	56	539	7.8	.0	5	14.1	14	97	96	--
JAN											
20...	1000	91	609	7.4	.0	9	10.0	2.2	667	280	--
FEB											
09...	1545	131	591	7.7	.5	10	11.5	7.0	--	--	--
MAR											
02...	1500	152	533	7.4	1.0	25	8.9	2.9	173	108	--
APR											
13...	1330	152	534	8.2	17.5	45	12.8	3.8	470	131	--
MAY											
04...	1900	871	260	7.7	22.5	450	4.3	7.5	69000	75000	--
JUN											
16...	1330	1290	188	7.4	25.0	1200	5.8	18	17700	17500	--
23...	1030	5640	138	7.1	23.0	1600	4.7	18	15000	15000	--
JUL											
07...	1600	273	440	7.6	28.0	250	6.3	10	127000	--	5000
AUG											
05...	1100	4840	125	7.4	22.0	1100	6.8	16	46000	--	190000
17...	1300	8530	110	7.4	22.0	880	6.7	23	17000	--	39000
SEP											
28...	1630	250	575	7.8	18.0	50	8.2	6.4	1930	--	1460

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS- SOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L) (00625)	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L) (00666)
NOV											
03...	46	354	.48	97.5	.65	.08	.59	.67	1.3	.36	--
17...	35	300	.41	118	1.3	.08	.51	.59	1.9	.41	--
DEC											
08...	31	--	.46	51.0	1.4	.04	.04	.08	1.5	.29	.26
JAN											
20...	46	372	.51	91.4	1.8	.12	.29	.41	2.2	.37	--
FEB											
09...	61	356	.48	126	1.6	.09	.09	.18	1.8	.29	--
MAR											
02...	38	--	.44	134	.94	.07	.55	.62	1.6	.31	.24
APR											
13...	39	323	.44	133	.80	.09	.82	.91	1.7	.43	--
MAY											
04...	12	--	.22	383	1.7	.47	4.0	4.5	6.2	.56	.24
JUN											
16...	6.8	--	.15	373	--	.16	9.6	9.8	--	1.5	.30
23...	3.8	--	.13	1420	2.9	.23	8.9	9.1	12	.17	.17
JUL											
07...	36	262	.36	193	.37	.27	2.0	2.3	2.7	.59	--
AUG											
05...	--	--	--	--	--	--	--	--	--	--	--
17...	4.8	78	.11	1800	1.5	.37	5.0	5.4	6.9	5.5	--
SEP											
28...	47	348	.47	235	1.1	.12	.85	.97	2.1	.61	--

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	CHEM-ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)
DEC 08...	1530	8	--	210	14	66	11	36	1.1	6.4	239	0
MAR 02...	1500	12	--	180	2	58	9.4	38	1.2	5.8	221	0
MAY 04...	1900	300	120	98	7	31	4.9	13	.6	8.5	110	0
JUN 16...	1330	900	--	69	12	22	3.4	6.0	.3	9.4	69	0
23...	1030	520	380	45	4	19	2.4	3.8	.2	8.7	50	0

DATE	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L) (00608)	DIS-SOLVED ORGANIC NITRO-GEN (N) (MG/L) (00607)	SUS-PENDED KJEL. NITRO-GEN (N) (MG/L) (00624)	DIS-SOLVED KJEL. NITRO-GEN (N) (MG/L) (00623)	TOTAL ARSENIC (AS) (UG/L) (01002)
DEC 08...	196	38	.2	28	335	--	--	--	--	--	--
MAR 02...	181	43	.3	24	326	--	--	--	--	--	--
MAY 04...	90	18	.4	14	163	1.3	.46	1.4	2.6	1.9	17
JUN 16...	57	14	.4	11	107	--	--	--	--	--	--
23...	41	14	.4	11	93	2.3	.09	1.1	7.9	1.2	70

DATE	SUS-PENDED ARSENIC (AS) (UG/L) (01001)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD-MIUM (CD) (UG/L) (01027)	SUS-PENDED CAD-MIUM (CD) (UG/L) (01026)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)	TOTAL CHRO-MIUM (CR) (UG/L) (01034)	SUS-PENDED CHRO-MIUM (CR) (UG/L) (01031)	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	SUS-PENDED COBALT (CO) (UG/L) (01036)
DEC 08...	--	--	50	--	--	--	--	--	--	--	--
MAR 02...	--	3	40	--	--	2	--	--	0	--	--
MAY 04...	13	4	70	10	7	3	20	20	0	<50	<50
JUN 16...	--	--	50	--	--	--	--	--	--	--	--
23...	67	3	40	10	8	2	60	60	0	<50	<50

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED COBALT (CU) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	SUS-PENDED COPPER (CU) (UG/L) (01041)	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	TOTAL IRON (FE) (UG/L) (01045)	TOTAL LEAD (PB) (UG/L) (01051)	SUS-PENDED LEAD (PB) (UG/L) (01050)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	TOTAL MAN-GANESE (MN) (UG/L) (01055)	SUS-PENDED MAN-GANESE (MN) (UG/L) (01054)
DEC											
08...	--	--	--	--	50	--	--	--	--	--	--
MAR											
02...	--	--	--	3	30	--	--	--	10	--	--
MAY											
04...	0	40	27	13	60	3400	100	92	8	730	710
JUN											
16...	--	--	--	--	80	--	--	--	--	--	--
23...	0	80	69	11	70	88000	200	190	6	1100	1100

DATE	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	SUS-PENDED MERCURY (HG) (UG/L) (71895)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELE-NIUM (SE) (UG/L) (01147)	SUS-PENDED SELE-NIUM (SE) (UG/L) (01146)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	TOTAL ZINC (ZN) (UG/L) (01092)	SUS-PENDED ZINC (ZN) (UG/L) (01091)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)
DEC											
08...	60	--	--	--	--	--	--	--	--	--	--
MAR											
02...	40	.3	.3	.0	--	--	2	0	--	--	10
MAY											
04...	20	.2	.2	.0	2	1	1	0	160	110	50
JUN											
16...	40	--	--	--	--	--	--	--	--	--	--
23...	20	.6	.6	.0	5	4	1	0	340	320	20

DATE	TIME	DIS-SOLVED PCB (UG/L) (39517)	DIS-SOLVED ALDRIN (UG/L) (39331)	DIS-SOLVED CHLOR-DANE (UG/L) (39352)	DIS-SOLVED DDD (UG/L) (39361)	DIS-SOLVED DDE (UG/L) (39366)	DIS-SOLVED DDT (UG/L) (39371)	DIS-SOLVED DI-AZINON (UG/L) (39572)	DIS-SOLVED DI-ELDRIN (UG/L) (39381)	DIS-SOLVED ENDRIN (UG/L) (39391)
MAY										
04...	1900	.0	.00	.0	.00	.00	.00	.01	.00	.00
JUN										
23...	1030	.0	.00	.0	.00	.00	.00	.00	.00	.00
AUG										
05...	1100	.0	.00	.0	.00	.00	.00	.01	.00	.00

DATE	DIS-SOLVED HEPTA-CHLOR (UG/L) (39411)	DIS-SOLVED HEPTA-CHLOR EPOXIDE (UG/L) (39421)	DIS-SOLVED LINDANE (UG/L) (39341)	DIS-SOLVED MALA-THION (UG/L) (39532)	DIS-SOLVED METHYL PARA-THION (UG/L) (39602)	DIS-SOLVED PARA-THION (UG/L) (39542)	DIS-SOLVED TOX-APHENE (UG/L) (39401)	DIS-SOLVED 2,4-D (UG/L) (39732)	DIS-SOLVED 2,4,5-T (UG/L) (39742)	DIS-SOLVED SILVEX (UG/L) (39762)
MAY										
04...	.00	.00	.00	.00	.00	.00	0	.28	.04	.00
JUN										
23...	.00	.00	.00	.00	.00	.00	0	.03	.01	.00
AUG										
05...	.00	.00	.00	.00	.00	.00	0	.07	.01	.00

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SUSPENDED SEDIMENT (MG/L) (80154)	SUSPENDED SEDIMENT DISCHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)
MAY 04...	1800	871	27.5	2540	5970	58	63	80	96	98	98	100
JUN 23...	1000	5640	--	8330	127000	52	59	78	94	97	99	100
AUG 05...	1100	8840	22.0	5240	68500	48	54	70	94	98	99	100

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	NUMBER OF SAMPLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
MAY 04...	1800	871	5	27	44	50	67	81	89	95	99	100
JUN 23...	1000	5640	5	--	0	4	16	55	77	92	98	100
AUG 05...	1100	8840	3	--	0	5	28	64	79	92	97	100

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial record stations during water year 1977

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Niobrara River basin				
06465050	Eagle Creek near Midway, NE	Lat 42°38'01", long 98°46'21", in SW1/4NW1/4 sec.30, T.31 N., R.12 W., Holt County, at county road bridge 4.3 miles south and 6 miles west of Midway.	--	1969-77	04-25-77 09-26-77	17 13
06465100	East Branch Eagle Creek near Midway, NE	Lat 42°37'35", long 98°45'49", in SW1/4SE1/4 sec.30, T.31 N., R.12 W., Holt County, at county road bridge 5 miles south and 5.4 miles west of Midway.	--	1969-77	04-26-77 09-27-77	7.8 5.6
06465398	Redbird Creek near Meek, NE	Lat 42°39'33", long 98°33'31", in NE1/4SE1/4 sec.14, T.31 N., R.11 W., Holt County, at site 3.2 miles east and 2.7 miles south of Meek.	--	1969-77	04-25-77 09-26-77	14 10
06465420	Blackbird Creek near Meek, NE	Lat 42°39'46", long 98°34'24", in SW1/4NW1/4 sec.14, T.31 N., R.11 W., Holt County, at county road bridge 2.4 miles east and 2.3 miles south of Meek.	--	1969-77	04-25-77 09-26-77	6.3 3.9
		Platte River basin				
06772500	Wood River near Chapman, NE [1]	Lat 40°57'56", long 98°12'22", at center of west line of sec.35, T.12 N., R.8 W., Merrick County, at timber bridge 3.2 miles southwest of Chapman.	--	1957-60a, 1961-77	10-26-76 11-10-76 11-23-76 12-01-76 12-14-76 01-12-77 01-25-77 02-24-77 03-17-77 03-24-77 04-06-77 04-27-77 05-11-77 05-11-77 06-09-77 06-29-77 07-14-77 07-20-77 08-02-77 08-23-77 09-15-77 09-20-77	0.58 17 2.4 4.2 4.6 1.4 12 4.1 33 26 60 18 210 18 41 32 29 27 13 11 45 31
		Kansas River basin				
06824200	Horse Creek near Parks, NE	Lat 40°02'23", long 101°41'09", in SE1/4NE1/4 sec.23, T.1 N., R.39 W., Dundy County, at county road bridge 0.5 mile upstream from mouth and 2 miles east of Parks.	--	1949, 1951-60a, 1961-77	04-26-77	1.4
06828200	Indian Creek near Max, NE	Lat 40°07'48", long 101°21'48", on line between secs.22 and 23, T.2 N., R.36 W., Dundy County, at county road bridge 0.2 mile north of U.S. Highway 34 and 2.5 miles east of Max.	--	1949, 1951-60a, 1961-77	04-26-77 06-27-77 07-26-77	5.4 1.4 .8

See footnotes at end of table

Discharge measurements made at low-flow partial record stations during water year 1977--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Kansas River Basin--Continued				
* 06850000	Turkey Creek at Naponee, NE	Lat 40°04'34", long 99°08'17", in SW1/4SE1/4 sec.4, T.1 N., R.16 W., Franklin County, at county road bridge on east side of Naponee, 0.8 mile upstream from mouth.	138	1948-53#, 1954-60a, 1961-77	10-12-76 03-29-77 05-09-77 06-06-77 07-06-77 08-02-77 08-29-77	8.6 12 52 11 .88 7.8 10
* 06850200	Cottonwood Creek near Bloomington, NE	Lat 40°05'06", long 99°03'56", in SE1/4NE1/4 sec.1, T.1 N., R.16 W., Franklin County, at county road bridge 1 mile upstream from mouth and 1.5 miles east of Bloomington.	15.6	1948-56#, 1957, 60a, 1961-77	10-12-76 03-29-77	3.7 5.0
* 06852000	Elm Creek at Amboy, NE	Lat 40°05'26", long 98°26'07", in NE1/4NE1/4 sec.3, T.1 N., R.10 W., Webster County, at bridge on U.S. Highway 136 at east edge of Amboy, 2.5 miles upstream from mouth.	39.2	1948-53#, 1954-60a, 1961-77	10-12-76 03-29-77 04-13-77 09-13-77	13 10 133 195

* Also a crest-stage gage.
# Operated as a continuous-record gaging station.
† Also published with additional data as a water-quality site
a Published as a miscellaneous site.

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest stage partial record stations during water year 1977

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft³/s)
		Cheyenne River basin					
06396490	Warbonnet Creek near Harrison, NE	Lat 42°38'43", long 103°54'41", in SW1/4 sec.10, T.33 N., R.56 W., Sioux County, at culvert on all weather road, 11.5 miles north of Harrison.	24.5	1969-77	06-08-77	11.66	14
		White River basin					
06443300	Deep Creek near Glen, NE	Lat 42°36'37", long 103°33'22", in SE1/4SE1/4 sec.32, T.31 N., R.53 W., Sioux County, at bridge 1.4 miles east of Glen.	10.9	1953-77	06-11-77	8.01	25
06443700	Soldiers Creek near Crawford, NE	Lat 42°41'18", long 103°32'09", in NE1/4SW1/4 sec.3, T.31 N., R.53 W., Sioux County, on right bank 6 miles west of Crawford.	52.6	1955-77	08-08-77	13.17	190
06445530	Chadron Creek tributary at Chadron State Park near Chadron, NE	Lat 42°41'49", long 103°00'09", in NE1/4NE1/4 sec.6, T.31 N., R.48 W., Dawes County, on left downstream side of concrete box culvert on U.S. Highway 385, 9 miles south of Chadron.	2.59	1953-77	05-06-77	10.80	16
06445560	Chadron Creek at Chadron State Park near Chardon, NE	Lat 42°42'27", long 103°00'33", in SE1/4NE1/4 sec.36, T.32 N., R.49 W., Dawes County, on left downstream wingwall of concrete culvert, 9 miles south of Chadron.	15.6	1953-77	05-06-77	9.98	2.7
		Niobrara River basin					
06454400	Niobrara River tributary near Belmont, NE	Lat 42°36'16", long 103°22'31", in SE1/4SW1/4 sec.25, T.30 N., R.52 W., Dawes County, on tree upstream from a concrete box culvert under State Highway 2, 1.2 miles southeast of Belmont, 7.5 miles northwest of Marsland, and 10 miles south of Crawford.	2.59	1971-77	08-08-77	12.27	(*)
06456200	Pebble Creek near Rether, NE	Lat 42°35'30", long 103°03'55", in NW1/4NW1/4 sec.10, T.30 N., R.49 W., Dawes County, on post in creek channel, 300 ft below bridge on county road 5 miles west of Rether (former post office) and U.S. Highway 385.	3.07	1953-77	77		0
06456400	Cottonwood Creek near Dunlap, NE	Lat 42°29'29", long 102°58'00", in SW1/4NW1/4 sec.16, T.29 N., R.48 W., Dawes County, on downstream side of bridge on U.S. Highway 385, 2 miles northwest of Dunlap and 3 miles north of Niobrara River bridge.	82.2	1948, 1951-77	05-26-77	9.58	5.0
06457100	Point of Rocks Creek near Marsland, NE	Lat 42°16'57", long 103°18'23", in SE1/4SE1/4 sec.30, T.27 N., R.51 W., Box Butte County, at upstream end of box culvert under graveled secondary road 10.0 miles south of Marsland and 2.0 miles south of consolidated school at the intersection of State Highways 2 and 71.	7.10	1970-77	Unknown	12.12	(*)
06457200	Berea Creek near Alliance, NE	Lat 42°08'20", long 102°52'41", in NE1/4SE1/4 sec.14, T.25 N., R.48 W., Box Butte County, at upstream side of county road, 2.9 miles north of the junction of Emerson and Third Street in Alliance.	32.3	1953-70a, 1971-77	05-26-77	13.55	130
06457800	Antelope Creek tributary near Gordon, NE	Lat 42°49'57", long 102°12'09", in SW1/4SW1/4 sec.10, T.33 N., R.41 W., Sheridan County, at bridge on State Highway 27, 2 miles north of Gordon and 2.5 miles north of U.S. Highway 20.	26.6	1953-77	77		0

See footnotes at end of table

Annual maximum discharge at crest stage partial record stations during water year 1977--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Niobrara River basin--Continued					
06461300	Big Beaver Creek near Valentine, NE	Lat 42°38'24", long 100°27'25", in SE1/4SE1/4 sec.2, T.34 N., R.27 W., Cherry County, at box culvert under State Highway 12, 7.6 miles northeast of Valentine and 10.2 miles west of Sparks.	24.9	1971-77	04-20-77	10.82	3
06465300	Camp Creek near O'Neill, NE	Lat 42°39'08", long 98°39'26", in NE1/4SE1/4 sec.19, T.31 N., R.11 W., Holt County, on U.S. Highway 281, 13 miles north of O'Neill.	1.65	1950-77	05-22-77	(b)	c5
06465830	Bingham Creek near Niobrara, NE	Lat 42°42'12", long 98°02'58", in NE1/4SE1/4 sec.32, T.32 N., R.6 W., Knox County, at culvert on State Highway 14, 4.7 miles south of Niobrara.	46.5	1960-77	06-17-77	(b)	c2
		Weigand Creek basin					
06466950	Weigand Creek near Crofton, NE	Lat 42°43'36", long 97°37'55", in NE1/4NE1/4 sec.26, T.32 N., R.3 W., Knox County, at culvert on State Highway 12, 5.5 miles east of Lindy and 6.5 miles west of Crofton.	83.5	1960-77	06-16-77	10.91	190
		Bow Creek basin					
06478520	East Bow Creek near Fordyce, NE	Lat 42°41'40", long 97°25'06", in NE1/4NE1/4 sec.3, T.31 N., R.1 W., Cedar County, at bridge on U.S. Highway 81, 1.2 miles southeast of Constance and 2.9 miles west of Fordyce.	52.7	1964-65, 1967f, 1967-77	08-09-77	11.80	300
		Omaha Creek basin					
06600800	South Omaha Creek tributary No. 2 near Walthill, NE	Lat 42°08'10", long 96°28'37", in NE1/4SE1/4 sec.13, T.25 N., R.8 E., Thurston County, at culvert on U.S. Highway 77, 0.6 mile south of State Highway 94 and 0.8 mile southeast of Walthill.	1.65	1950-77	10-04-76	8.2	5.0
06600900	South Omaha Creek at Walthill, NE	Lat 42°08'54", long 96°28'58", in SE1/4SE1/4 sec.11, T.25 N., R.8 E., Thurston County, at bridge on State Highway 94 at east edge of Walthill.	51.2	1951-77	10-04-76	4.62	2.0
		Tekamah Creek basin					
06601000	South Branch Tekamah Creek tributary near Tekamah, NE	Lat 41°45'15", long 96°17'11", in NW1/4NE1/4 sec.34, T.21 N., R.10 E., Burt County, at bridge on east-west county road, 4 miles southwest of Tekamah.	4.08	1950-77	08-09-77	12.70	570
		New York Creek basin					
06601700	New York Creek tributary near Spiker, NE	Lat 41°38'28", long 96°18'27", in SW1/4SE1/4 sec.4, T.19 N., R.10 E., Washington County, at box culvert on east-west county road, 300 ft east of north-south county road and 2.2 miles north of Spiker.	1.55	1951-77	08-09-77	26.15	140
06601900	New York Creek east of Spiker, NE	Lat 41°36'53", long 96°16'14", in SE1/4SE1/4 sec.15, T.19 N., R.10 E., Washington County, on north-south dirt road, 200 ft south of county road and 2.6 miles east of Spiker.	13.9	1950-77	05-08-77	9.25	220

Annual maximum discharge at crest stage partial record stations during water year 1977--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Papillion Creek basin					
06610700	Big Papillion Creek near Orum, NE	Lat 41°32'44", long 96°13'10", in NW1/4SE1/4 sec.7, T.18 N., R.11 E., Washington County, at bridge on State Highway 91, 2.7 miles east of Orum and 4.3 miles west of Blair.	8.52	1966-77	05-11-77	15.38	746
		Platte River basin					
06678750	Dry Spottedtail Creek tributary near Mitchell, NE	Lat 42°07'00", long 103°49'22", in NW1/4NE1/4 sec.26, T.25 N., R.56 W., Sioux County, at upstream end of box culvert under State Highway 29, 3.6 miles north of Interstate Canal and 12 miles north of Mitchell.	15.0	1971-77	07-09-77	14.73	620
06684900	Hackberry Creek near Redington, NE	Lat 41°35'00", long 103°25'17", in NW1/4NW1/4 sec.34, T.19 N., R.53 W., Banner County, at upstream side of box culvert under State Highway 88, 8 miles west of Redington.	16.6	1970-77	06-26-77	11.36	1
06687600	Ash Hollow near Oshkosh, NE	Lat 41°15'05", long 102°20'28", in SE1/4SE1/4 sec.22, T.15 N., R.44 W., Garden County, at upstream side of box culvert under State Highway 27, 11 miles south of Oshkosh.	54.9	1966f, 1968, 1970-77	77		0
06762650	Lodgepole Creek tributary near Kimball, NE	Lat 41°17'57", long 103°36'32", in SE1/4SE1/4 sec.30, T.16 N., R.55 W., Kimball County, at upstream side of box culvert under State Highway 71, 6.5 miles north of Kimball.	8.68	1970-77	77		0
06763200	Lodgepole Creek tributary near Sunol, NE	Lat 41°10'00", long 102°43'25", in SE1/4SE1/4 sec.20, T.14 N., R.47 W., Cheyenne County, at upstream side of box culvert under graveled county road, 2 miles east and 0.6 mile north of Sunol.	15.6	1966f, 1968-77	77		0
06767200	North Fork Plum Creek tributary near Farnam, NE	Lat 40°42'14", long 100°14'24", in NW1/4SW1/4 sec.36, T.9 N., R.26 W., Lincoln County, at box culvert on State Highway 23, 0.1 mile east of north-south dirt road and 1.3 miles west of main street in Farnam.	1.83	1952-77	05-22-77	11.12	86
06767410	Plum Creek near Farnam, NE	Lat 40°41'13", long 100°08'42", in NE1/4NW1/4 sec.10, T.8 N., R.25 W., Frontier County, on east-west road 0.4 mile west of State Highway 23 and 4 miles southeast of Farnam.	80.4	1947, 1951-77	05-22-77	12.24	215
06767500	Plum Creek near Smithfield, NE	Lat 40°39'40", long 99°42'00", in NW1/4SW1/4 sec.15, T.9 N., R.21 W., Gosper County, on left bank just downstream from county highway bridge, 6.5 mi northeast of Smithfield.	229	1946-53a, 1954-60, 1960-75a, 1976-77	4-09-76 5-22-77	16.30 16.63	e163 322
06768050	Buffalo Creek tributary No. 1 near Buffalo, NE	Lat 41°00'44", long 99°48'48", in SW1/4SE1/4 sec.15, T.12 N., R.22 W., Dawson County, at bridge east of Lutheran Church and School, 2 miles northeast of Buffalo.	2.08	1965-77	05-21-77	(b)	c5
06768100	East Buffalo Creek near Buffalo, NE	Lat 41°00'17", long 99°50'14", in SE1/4SW1/4 sec.16, T.12 N., R.22 W., Dawson County, on bridge 100 ft south of fork in road and 1.2 miles north of road intersection at Buffalo.	5.21	1951-77	77		0
06768400	West Buffalo Creek near Buffalo, NE	Lat 40°59'22", long 99°52'21", in NW1/4SE1/4 sec.30, T.12 N., R.22 W., Dawson County, on bridge on dirt road, 2.0 miles west of crossroads at Buffalo.	17.1	1951-77	05-21-77	11.55	c2
06769100	Elm Creek tributary near Overton, NE	Lat 40°53'14", long 99°33'48", in SW1/4SE1/4 sec.26, T.11 N., R.20 W., Dawson County, at bridge on dirt road, 1.3 miles west and 10 miles north of Overton.	.58	1951-77	08-04-77	10.41	c5

Annual maximum discharge at crest stage partial record stations during water year 1977--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (ft³/s)
		Platte River basin--Continued					
06769200	Elm Creek near Sumner, NE	Lat 40°51'26", long 99°32'21", in SW1/4SW1/4 sec.7, T.10 N., R.19 W., Dawson County, at concrete culvert on gravel road, 1.4 miles west and 6 miles south of Sumner.	16.9	1951-77	04-20-77	13.62	5
06769300	Elm Creek tributary No. 2 near Overton, NE	Lat 40°51'04", long 99°32'21", in NW1/4SW1/4 sec.7, T.10 N., R.19 W., Dawson County, at culvert on gravel road, 7.5 miles north of Overton.	5.02	1951-77	05-21-77	12.30	250
06770600	Wood River tributary near Lodi, NE	Lat 41°11'50", long 99°50'21", in SE1/4SE1/4 sec.9, T.14 N., R.22 W., Custer County, at culvert on State Highway 40, 1.3 miles southeast of Lodi and 6.1 miles northwest of Oconto.	2.02	1952-77	04-20-77	12.29	60
06770700	Wood River near Lodi, NE	Lat 41°10'15", long 99°48'17", in SE1/4SE1/4 sec.23, T.14 N., R.22 W., Custer County, at culvert on State Highway 40, 2.9 miles northwest of Oconto, 4 miles southeast of Lodi, and 10 miles southeast of Callaway.	12.9	1952-77	05-21-77	12.23	94
06770800	Wood River near Oconto, NE	Lat 41°09'46", long 99°47'30", in SW1/4SE1/4 sec.26, T.14 N., R.22 W., Custer County, on State Highway 40, 2.6 miles northwest of Oconto.	26.6	1950, 1952-77	05-21-77	14.65	540
06770900	Wood River at Oconto, NE	Lat 41°08'50", long 99°45'26", in NW corner sec.32, T.14 N., R.21 W., Custer County, at bridge on State Highway 21 just north of Oconto, 0.8 mile north of junction with State Highway 40.	66.0	1950, 1952-77	05-21-77	14.37	220
06770910	Wood River near Lomax, NE	Lat 41°03'00", long 99°40'50", in SE1/4SE1/4 sec.25, T.13 N., R.21 W., Custer County, at bridge No. 7091 on State Highway 40, 50 ft downstream from Union Pacific Railroad bridge and 0.5 mile southeast of crossroads at Lomax.	79.6	1952-77	05-21-77	15.23	500
06771000	Wood River near Riverdale, NE	Lat 40°47'56", long 99°11'40", in SW1/4SW1/4 sec.31, T.10 N., R.16 W., Buffalo County, at downstream side of State Highway 40, 1.5 miles northeast of Riverdale.	370	1966-73a, 1976-77	05-26-77	6.25	450
06775700	North Fork Dismal River near Mullen, NE	Lat 41°51'00", long 101°02'14", in SE1/4NE1/4 sec.29, T.22 N., R.32 W., Hooker County, at upstream end of culvert under State Highway 97, 13 miles south of Mullen.	670	1971-77	05-07-77	17.62	192
06777600	Lillian Creek tributary near Broken Bow, NE	Lat 41°30'12", long 99°39'31", in SE1/4SE1/4 sec.30, T.18 N., R.20 W., Custer County, at bridge on north-south gravel road, 7.5 miles north of State Highway 2 in Broken Bow.	2.02	1952-77	08-16-77	(b)	<2
06777700	Lillian Creek near Broken Bow, NE	Lat 41°30'36", long 99°30'20", in SE1/4SE1/4 sec.30, T.18 N., R.20 W., Custer County, at bridge on north-south gravel road, 8 miles north of State Highway 2 in Broken Bow.	6.77	1947, 1951-77	07-10-77	10.34	<10
06777800	Lillian Creek tributary near Walworth, NE	Lat 41°37'33", long 99°36'13", in SE1/4SE1/4 sec.12, T.19 N., R.20 W., Custer County, on east-west dirt road, 2 miles south of Walworth.	2.06	1951-77	05-21-77	(b)	<5
06782600	South Branch Mud Creek tributary near Broken Bow, NE	Lat 41°25'57", long 99°42'09", in SW1/4SE1/4 sec.23, T.17 N., R.21 W., Custer County, at box culvert on State Highway 2, 4 miles northwest of Broken Bow.	.60	1951-77	08-06-77	13.43	123

Annual maximum discharge at crest-stage partial-record stations during water year 1977--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Platte River basin--Continued					
06782620	South Branch Mud Creek near Broken Bow, NE	Lat 41°26'31", long 99°40'44", in SW1/4SE1/4 sec.25, T.17 N., R.21 W., Custer County, at bridge on county road, 0.2 mile east of intersection with State Highway 2, near KCNI Tower, 1.6 mile northwest of courthouse in Broken Bow.	79.4	1976-77	08-06-77	(b)	e5
06782900	Mud Creek tributary near Broken Bow, NE	Lat 41°22'32", long 99°38'17", in NE1/4NE1/4 sec.8, T.16 N., R.20 W., Custer County, at double concrete box culvert on State Highway 21, 1.0 miles south of State Highway 2 in Broken Bow.	5.90	1945, 1951-77	08-16-77	12.63	70
06784700	Turkey Creek near Farwell, NE	Lat 41°13'16", long 98°40'45", in SW1/4NE1/4 sec.3, T.14 N., R.12 W., Howard County, at bridge on State Highway 92, 0.2 mile west of School No. 70 and 4.7 miles east of Farwell.	27.2	1950, 1952-77	08-16-77	17.94	(c)
06789400	Davis Creek southwest of North Loup, NE	Lat 41°26'32", long 98°48'32", in NE1/4NE1/4 sec.33, T.17 N., R.13 W., Valley County, at timber bridge 6.5 miles southwest of North Loup.	31.2	1951-77	08-16-77	20.63	220
06790600	East Branch Spring Creek tributary near Wolbach, NE	Lat 41°27'28", long 98°25'45", in NE1/4SE1/4 sec.11, T.17 N., R.10 W., Greeley County, at box culvert on county road, 0.6 mile south of east-west dirt road, 1.1 miles north of gravel road to Brayton, and 4.5 miles northeast of Wolbach.	1.52	1952-77	05-21-77	12.84	500
06790700	West Branch Spring Creek at Brayton, NE	Lat 41°27'27", long 98°28'30", in NE1/4NE1/4 sec.9, T.17 N., R.10 W., Greeley County, at steel truss bridge on north-south dirt road, 200 ft north of T in road and 0.4 mile south of Brayton.	15.5	1945, 1952-77	08-16-77	e13.02	320
06791100	Spring Creek near Cushing, NE	Lat 41°17'06", long 98°22'42", in SW1/4NE1/4 sec.6, T.15 N., R.9 W., Howard County, at bridge 0.9 mile southwest of Cushing and 1.9 miles upstream from Loup River.	104	1940g, 1949-53eg, 1953-77	08-16-77	12.90	860
06793005	Skeedee Creek tributary near Genoa, NE	Lat 41°29'46", long 97°52'23", in NE1/4 NE1/4 sec.14, T.18 N., R.5 W., Nance County, at bridge on county road, 5 miles south of St. Edward and 7.5 miles northeast of Genoa.	.50	1944f, 1964, 1960-77	08-09-77	13.02	900
06796710	Deer Creek near David City, NE	Lat 41°16'42", long 97°02'51", in SW1/4SE1/4 sec.11, T.15 N., R.3 E., Butler County, at bridge on State Highway Spur 12B, 1 mile north and 4.3 miles east of David City.	8.75	1963f, 1963, 1960-77	08-09-77	15.11	,910
06799140	South Fork Union Creek tributary near Cornlea, NE	Lat 41°42'00", long 97°34'22", in SE1/4SE1/4 sec.17, T.20 N., R.2 W., Platte County, at culvert on State Highway 91, 0.5 mile east and 1.2 miles north of Cornlea.	6.56	1967-77	05-21-77	15.11	1,000
06799423	North Logan Creek near Laurel, NE	Lat 42°28'00", long 97°02'55", in SW1/4SW1/4 sec.26, T.29 N., R.3 E., Cedar County, at bridge on U.S. Highway 20, 2.2 miles east and 3 miles north of Laurel.	d25.3	1965f, 1965, 1967f, 1967-77	08-20-77	12.05	52
06799610	Pond Creek near Schuyler, NE	Lat 41°31'15", long 97°03'33", in SW1/4NE1/4 sec.22, T.18 N., R.3 E., Colfax County, at culvert on State Highway 15, 4.7 miles north of Schuyler.	.50	1960-77	05-21-77	9.75	70
06800350	Elkhorn River tributary near Nickerson, NE	Lat 41°30'36", long 96°33'06", in NE1/4NE1/4 sec.29, T.18 N., R.8 E., Dodge County, at bridge on county road, 4.5 miles southeast of Nickerson.	6.53	1960-77	06-23-77	12.45	66

Annual maximum discharge at crest stage partial record stations during water year 1977--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft³/s)
		Platte River basin--Continued					
06803200	Antelope Creek at 48th Street, Lincoln, NE	Lat 40°47'16", long 96°39'13", in SE1/4SE1/4 sec.32, T.10 N., R.7 E., Lancaster County, on left downstream wingwall of culvert at 48th Street in Lincoln.	7.14	1951, 1958-77	07-11-77	11.10	1,000
06803300	Antelope Creek at 27th Street, Lincoln, NE	Lat 40°48'10", long 96°42'30", in SE1/4SE1/4 sec.25, T.10 N., R.6 E., Lancaster County, on downstream side of bridge at 27th and Alpha Streets in Lincoln.	10.6	1957-77	07-11-77	8.35	1,700
06803400	Antelope Creek at 17th Street Lincoln, NE	Lat 40°49'26", long 96°41'47", in SW1/4SE1/4 sec.24, T.10 N., R.6 E., Lancaster County, on right bank 40 ft downstream from 17th Street bridge in Lincoln and 3,400 ft upstream from mouth.	12.1	1958-62a, 1963-77	07-11-77	6.50	1,230
06803540	Bee Creek near Alvo, NE	Lat 40°50'52", long 96°25'06", in SE1/4NE1/4 sec.17, T.11 N., R.9 E., Cass County, at bridge on county road, 2 miles west and 3 miles north of Alvo.	7.88	1961a, 1962-77	08-16-77	15.00	1,400
06803570	Dunlap Creek tributary near Wahoo, NE	Lat 41°12'25", long 96°48'46", in SE1/4SE1/4 sec.2, T.14 N., R.5 E., Saunders County, on tree just upstream from box culvert on State Highway 79, 200 ft north of U.S. Highway 30A and State Highway 92 and 3.5 miles northwest of Wahoo.	.63	1950-77	08-31-77	17.20	165
06803600	North Fork Wahoo Creek near Prague, NE	Lat 41°15'37", long 96°48'47", in SE1/4NE1/4 sec.20, T.15 N., R.5 E., Saunders County, at bridge on State Highway 79, 0.2 mile south of road intersection and 3.5 miles south of Prague.	15.0	1951-77	08-31-77	23.69	6,300
06803900	North Fork Wahoo Creek at Wahoo, NE	Lat 41°12'19", long 96°42'48", in NE1/4NE1/4 sec.10, T.14 N., R.6 E., Saunders County, at bridge on State Highway 92, 1 mile northeast of Wahoo.	63.3	1951-77	08-31-77	23.12	11,000
06804100	Silver Creek near Cedar Bluffs, NE	Lat 41°22'44", long 96°35'13", in SW1/4NE1/4 sec.11, T.16 N., R.7 E., Saunders County, at bridge on county road, 0.8 mile east of State Highway 109 and 1.5 miles southeast of Cedar Bluffs.	7.00	1950-77	08-09-77	12.50	700
06804200	Silver Creek near Colon, NE	Lat 41°18'36", long 96°33'47", in SE1/4NE1/4 sec.6, T.15 N., R.8 E., Saunders County, at bridge on county road, 2.1 miles east of State Highway 109 and 2.5 miles east of Colon.	30.3	1950-77	09-03-77	14.00	1,060
06804300	Silver Creek tributary near Colon, NE	Lat 41°21'03", long 96°38'43", in SE1/4NE1/4 sec.20, T.16 N., R.7 E., Saunders County, at culvert on county road, 2.3 miles west of State Highway 109 and 4 miles northeast of Colon.	10.3	1951-77	09-03-77	14.20	570
06804400	Silver Creek tributary at Colon, NE	Lat 41°17'50", long 96°36'10", in SW1/4SW1/4 sec.2, T.15 N., R.7 E., Saunders County, at culvert on State Highway 109, 0.2 mile east of Colon.	17.6	1951-77	09-03-77	12.06	102
06804500	Silver Creek at Ithaca, NE	Lat 41°09'46", long 96°31'30", in SE1/4NE1/4 sec.20, T.14 N., R.8 E., Saunders County, at bridge on county road, 0.5 mile east of Ithaca.	80.0	1950-58a, 1959-77	09-03-77	12.15	2,300
06805010	Buffalo Creek near Gretna, NE	Lat 41°06'12", long 96°13'30", in NE1/4NE1/4 sec.18, T.13 N., R.11 E., Sarpy County, at bridge on county road, 1,700 ft downstream from junction of Buffalo Creek and left-bank tributary, 1,700 ft downstream from Interstate Highway 80, and 1 mile east and 2.5 miles south of Gretna.	4.29	1969-77	08-09-77	15.07	(*)

Annual maximum discharge at crest stage partial record stations during water year 1977--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (ft³/s)
		Weeping Water Creek basin					
06806440	Stove Creek at Elmwood, NE	Lat 40°50'32", long 96°17'37", in SW1/4NW1/4 sec.15, T.10 N., R.10 E., Cass County, at bridge on State Highway 1 at south side of Elmwood.	10.3	1950-77	08-31-77	19.50	3,150
06806460	Weeping Water Creek at Weeping Water, NE	Lat 40°51'18", long 96°07'10", in NW1/4NW1/4 sec.7, T.10 N., R.12 E., Cass County, at bridge of Missouri Pacific Railroad just south of north-south road, 1 mile southeast of Weeping Water.	80.1	1947, 1950-74, 1973-77f	08-09-77	10.05	1,800
06806470	Weeping Water Creek tributary near Weeping Water, NE	Lat 40°51'46", long 96°06'43", in NE1/4SW1/4 sec.6, T.10 N., R.12 E., Cass County, at culvert of Missouri Pacific Railroad, 1,400 ft west of north-south road and 1.5 miles southeast of Weeping Water.	.73	1950-77	08-31-77	12.05	125
		Honey Creek basin					
06810060	Honey Creek near Peru, NE	Lat 40°26'38", long 95°45'12", in SW1/4NE1/4 sec.32, T.6 N., R.15 E., Nemaha County, at bridge on county road, 1 mile west and 2 miles south of Peru.	3.43	1968-77	09-12-77	15.08	920
		Little Nemaha River basin					
06810100	Hooper Creek tributary near Palmyra, NE	Lat 40°46'10", long 96°25'23", in NW1/4NW1/4 sec.9, T.9 N., R.9 E., Otoe County, at bridge on east-west portion of State Highway 43, 300 ft east of turn in highway and 4.5 miles north of Palmyra.	8.00	1950-77	09-04-77	15.02	1,200
06810400	Little Nemaha River tributary near Syracuse, NE	Lat 40°40'05", long 96°11'54", in SE1/4SE1/4 sec.8, T.8 N., R.11 E., Otoe County, at multiple box culvert on county road, 50 ft west of crossroad, about 1.0 mile south of State Highway 2, and 1.5 miles northwest of Syracuse.	.71	1950-77	09-04-77	10.27	128
		Big Nemaha River basin					
06815510	Temple Creek near Falls City, NE	Lat 40°08'36", long 95°36'27", in NE1/4NW1/4 sec.15, T.2 N., R.16 E., Richardson County, at culvert on U.S. Highway 73, 6 miles north of Falls City.	2.99	1968-77	09-03-77	8.23	125
		Kansas River basin					
06828100	North Branch Indian Creek near Max, NE	Lat 40°09'52", long 100°23'51", in SW1/4SW1/4 sec.4, T.2 N., R.36 W., Dundy County, at bridge on county road, 1.8 miles above the mouth and 3.5 miles north of Max.	44.76	1962f, 1962, 1970-77	06-03-77	11.75	250
06829700	Thompson Canyon near Trenton, NE	Lat 40°09'44", long 100°57'31", in SE1/4SW1/4 sec.5, T.2 N., R.32 W., Hitchcock County, on downstream side of bridge on county road, 0.5 mile south and 2.8 miles east of Trenton.	9.06	1966f, 1968f, 1966-77	05-20-77	12.70	1,800
06834100	Spring Creek tributary near Grant, NE	Lat 40°49'52", long 101°48'57", in SW1/4SW1/4 sec.18, T.10 N., R.29 W., Perkins County, on downstream side of Burlington Northern Inc. railroad bridge, 57 ft upstream from culvert under State Highway 23 and 5.2 miles southwest of Grant.	17.9	1970-77	05-29-77	12.99	e5
06835100	Bobtail Creek near Palisade, NE	Lat 40°18'17", long 101°06'40", in SE1/4NW1/4 sec.13, T.4 N., R.34 W., Hitchcock County, on downstream side of bridge on county road, 2.2 miles south of Palisade and 3.5 miles upstream from Frenchman Creek.	d30.2	1966-67f, 1966-77	07-09-77	3.87	112

Annual maximum discharge at crest stage partial record stations during water year 1977--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Kansas River basin--Continued					
06837100	Ash Creek near Red Willow, NE	Lat 40°09'45", long 100°29'24", in SE1/4SW1/4 sec.4, T.2 N., R.28 W., Red Willow County, 10 ft downstream from bridge on county road, 5 miles south and 1 mile east of Red Willow school and 4 miles upstream from Republican River (revised).	18.3	1966f, 1966-73h 1974-77	77		0
06838200	Coon Creek at Indianola, NE	Lat 40°14'03", long 100°25'37", in NW1/4NE1/4 sec.13, T.3 N., R.28 W., Red Willow County, at bridge on U.S. Highways 6 and 34, 0.5 mile west of Indianola.	d69	1961-77	04-16-77	6.60	540
06838550	Dry Creek at Bartley, NE	Lat 40°15'02", long 100°19'02", in SW1/4SE1/4 sec.1, T.3 N., R.27 W., Red Willow County, at bridge on U.S. Highway 6 and 34, 0.5 mile west of Bartley.	d42	1961-77	05-21-77	11.63	170
06839000	Medicine Creek at Maywood, NE	Lat 40°39'23", long 100°36'41", in NE1/4NE1/4 sec.21, T.8 N., R.29 W., Frontier County, 150 ft downstream from bridge on county road and 0.2 mile east of Maywood.	d231	1951-58e, 1960-77	77		0
06839200	Elkhorn Canyon near Maywood, NE	Lat 40°36'10", long 100°42'02", in NE1/4SW1/4 sec.2, T.7 N., R.30 W., Frontier County, on tree on left bank, 10 ft downstream from bridge, 4.5 miles upstream from Brushy Creek, and 6 miles southwest of Maywood.	6.74	1952-77	77		0
06839700	Frazier Creek tributary near Maywood, NE	Lat 40°35'32", long 100°37'46", in SE1/4NE1/4 sec.8, T.7 N., R.29 W., Frontier County, at box culvert on U.S. Highway 83, 4.5 miles south of Maywood.	.72	1952-77	77		0
06839900	Fox Creek upstream from Cut Canyon near Curtis, NE	Lat 40°44'40", long 100°31'52", in SE1/4SE1/4 sec.17, T.9 N., R.28 W., Lincoln County, at timber bridge 8.0 miles north of Curtis.	31.8	1951-77	05-22-77	10.52	60
06839950	Cut Canyon near Curtis, NE	Lat 40°43'39", long 100°32'10", in NE1/4NW1/4 sec.29, T.9 N., R.28 W., Lincoln County, at timber bridge 6.5 miles north of Curtis.	25.6	1951-77	05-22-77	13.47	310
06849600	Turkey Creek near Holdrege, NE	Lat 40°19'33", long 99°22'04", in NW1/4SW1/4 sec.9, T.4 N., R.18 W., Harlan County, at bridge on U.S. Highway 183, 7.8 miles south of Holdrege.	22.9	1941, 1960, 1967f, 1967-77	05-02-77	12.31	185
* 06850000	Turkey Creek at Naponee, NE	Lat 40°04'34", long 99°08'17", in SW1/4SW1/4 sec.4, T.1 N., R.16 W., Franklin County, on downstream side of county bridge at east side of Naponee.	129	1948-53e, 1954-61f, 1962-77	08-25-77	4.82	260
* 06850200	Cottonwood Creek near Bloomington, NE	Lat 40°05'09", long 99°04'05", in SE1/4NE1/4 sec.1, T.1 N., R.16 W., Franklin County, on downstream side of county bridge, 1 mile upstream from mouth and 1.5 miles west of Bloomington.	15.8	1948-56e, 1957-61f, 1962-77	05-08-77	6.87	310
06850500	Republican River near Bloomington, NE	Lat 40°03'58", long 99°02'14", in NW1/4SE1/4 sec.8, T.1 N., R.15 W., Franklin County, 2 miles south of Bloomington.	21,000	1929-57e, 1960-67f, 1970-77j	07-21-77	3.98	1929
06851090	Republican River at Riverton, NE	Lat 40°05'26", long 98°46'03", in SE1/4SE1/4 sec.34, T.2 N., R.13 W., Franklin County, at bridge on county road 0.5 mile west of Riverton.	21,300	1963-67f, 1970-77j	07-21-77	4.70	1844
06851300	West Branch Thompson Creek tributary near Hildreth, NE	Lat 40°19'10", long 99°00'33", in NW1/4NW1/4 sec.15, T.4 N., R.15 W., Franklin County, on north-south county road, 2 miles southeast of Hildreth and 3 miles west of State Highway 10.	11.5	1953-77	09-12-77	14.76	360

Annual maximum discharge at crest stage partial record stations during water year 1977--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Kansas River basin--Continued					
06851400	West Branch Thompson Creek near Upland, NE	Lat 40°17'32", long 98°56'10", in NE1/4NE1/4 sec.30, T.4 N., R.14 W., Franklin County, on State Highway 4, 3 miles southwest of Upland.	128	1953-77	09-12-77	11.50	360
* 06852000	Elm Creek at Amboy, NE	Lat 40°05'20", long 98°26'07", in NE1/4NW1/4 sec.3, T.1 N., R.10 W., Webster County, on downstream side of bridge on U.S. Highway 136 at east edge of Amboy.	39.2	1948-53e, 1958-60f, 1959, 1961-77	09-12-77	15.23	2,700
06853100	Beaver Creek near Rosemont, NE	Lat 40°15'47", long 98°22'31", in NW1/4NE1/4 sec.6, T.3 N., R.9 W., Webster County, at county road bridge 1.8 miles southwest of Rosemont.	.752	1938-70e, 1971-77	09-12-77	3.25	210
06853400	Republican River at Superior, NE	Lat 40°01'22", long 98°06'17", in NE corner SE1/4 sec.28, T.1 N., R..7 W., Nuckolls County, on downstream guardrail of railroad bridge at cement plant, 2.0 miles west of Superior.	22,300	1961-65g, 1967g, 1971-75, 1977	06-22-77	7.36	1,060
06879850	Big Blue River tributary (site 1) near Nordville, NE	Lat 41°02'47", long 97°56'27", in SW1/4SW1/4 sec.31, T.13 N., R.5 W., Hamilton County, at bridge on east-west county road, 2.2 miles south and 2.8 miles west of Nordville.	4.07	1968-71 1972-74k, 1976-77	08-31-77	13.40	(*)
06880508	Plum Creek near Seward, NE	Lat 40°55'49", long 97°04'32", in NE1/4NW1/4 sec.15, T.11 N., R.3 E., Seward County, at bridge on county road, 0.6 mile north and 1.3 miles east of Seward.	85.5	1963f, 1963, 1968-77	09-01-77	18.03	1,400
06880590	North Branch West Fork Big Blue River tributary at Giltner, NE	Lat 40°47'04", long 98°08'57", in NE1/4NE1/4 sec.6, T.9 N., R.7 W., Hamilton County, at culvert on State Highway Spur 502, 0.7 mile north of Giltner.	7.52	1968-77	08-14-77	11.37	490
06880720	School Creek near Harvard, NE	Lat 40°35'49", long 98°03'04", in NW1/4NW1/4 sec.7, T.7 N., R.6 W., Clay County, at bridge on black-top county road, 0.9 mile north of junction of U.S. Highway 6 and State Highway 14 and 3 miles southeast of Harvard.	51.5	1953-77	09-12-77	18.58	c2,000
06880730	School Creek tributary No. 2 near Harvard, NE	Lat 40°36'42", long 98°02'36", in SE1/4SW1/4 sec.31, T.8 N., R.6 W., Clay County, at culvert on east-west portion of black-top county road, 100 ft north of Burlington Northern Inc. underpass and 3 miles east of Harvard.	16.4	1953-77	09-12-77	12.44	80
06880775	Beaver Creek tributary near Henderson, NE	Lat 40°48'52", long 97°48'43", in NW1/4NE1/4 sec.30, T.10 N., R.4 W., York County, at culvert on east-west county road, 0.3 mile west and 2 miles north of Henderson.	1.16	1968-77	05-21-77	10.60	18
06881250	South Fork Swan Creek tributary near Western, NE	Lat 40°18'18", long 97°10'46", in NE1/4NE1/4 sec.22, T.4 N., R.2 E., Jefferson County, at culvert on State Highway 15, 6.2 miles southeast of Western and 1.1 miles south and 6.3 miles east of Dakin.	.07	1968-77	05-16-77	10.53	(*)
06881450	Indian Creek at Beatrice, NE	Lat 40°17'08", long 96°44'47", in SE1/4NE1/4 sec.28, T.4 N., R.6 E., Gage County, at bridge on U.S. Highway 77 at north edge of Beatrice.	74.7	1960-77	09-03-77	14.21	1,950
06881530	Big Blue River tributary near Beatrice, NE	Lat 40°15'46", long 96°39'09", in SW1/4SE1/4 sec.32, T.4 N., R.7 E., Gage County, at upstream end of box culvert of U.S. Highway 136, 4.6 miles east of highway intersection in Beatrice.	1.86	1971-77	08-16-77	16.62	550
06883560	Spring Creek tributary near Ruskin, NE	Lat 40°06'50", long 97°49'13", in SE1/4NE1/4 sec.25, T.2 N., R.5 W., Nuckolls County, at culvert on north-south county road, 2.3 miles south and 2.5 miles east of Ruskin.	2.11	1967-77	09-12-77	14.36	472

Annual maximum discharge at crest stage partial record stations during water year 1977--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Kansas River basin--Continued					
06883700	South Fork Big Sandy Creek near Davenport, NE	Lat 40°18'27", long 97°52'39", in SW1/4SW1/4 sec.15, T.4 N., R.5 W., Nuckolls County, at wood bridge on dirt road, 50 ft north of State Highway 4 and 3.5 miles west of Davenport.	28.1	1950, 1952-77	07-11-77	13.57	1,480
06883955	Little Sandy Creek near Ohiowa, NE	Lat 40°25'37", long 95°23'38", in SE1/4SE1/4 sec.16, T.5 N., R.1 W., Fillmore County, at bridge on east-west county road 1 mile south and 1.5 miles east of Ohiowa.	11.6	1968-77	08-16-77	16.39	1,370
06884005	Dry Branch tributary near Fairbury, NE	Lat 40°02'43", long 97°10'14", in SW1/4SE1/4 sec.14, T.1 N., R.2 E., Jefferson County, at bridge on State Highway 15, 3 miles north of Nebraska-Kansas State line and 6.4 miles south of Fairbury.	4.51	1968-77	08-04-77	14.86	615

* Also a low-flow partial-record station.
+ Discharge not determined.
# Operated as a continuous-record gaging station.
a At site 1.2 miles downstream, drainage area 34.0 sq. mi.
b Stage below bottom of gage, which is 10.0 ft.
c Estimate.
d Approximate.
e Outside flood mark.
f Discharge measurements published in table for miscellaneous sites.
g At site 1 mile north, record considered equivalent.
h At site 2.0 miles downstream, drainage area 22 sq. mi., record considered equivalent.
j Discharge measurements only.
k At site 1.08 miles downstream, drainage area 5.03 sq. mi.
m Not previously published.

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table. Those that are measurements of peak flow are designated by a dagger (†).

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Niobrara River Basin				
Niobrara River (06466000)	Missouri River	Lat 42°44'50", long 98°03'00", in SW1/4 sec.17, T.32 N., R.6 W., near left bank on downstream side of bridge on State Highway 12, 0.8 mile southwest of Niobrara.	--	1902, 1910-13a, 1954-58a, 1974,1976	06-08-77	904
		Platte River Basin				
Lodgepole Creek † (06762550)	South Platte River	Lat 41°14'50", long 103°38'32", in SW1/4NW1/4 sec.28, T.15 N., R.55 W., Kimball County, at county road bridge 0.8 mile north of U.S. Highway 30 at east edge of Kimball.	--	1973-76	10-18-76 11-15-76 12-20-76 01-17-77 02-14-77 03-21-77 04-18-77 05-16-77 06-20-77 07-18-77 08-15-77 09-19-77	.31 7.4 3.3 4.5 10 9.2 11 3.6 1.2 .56 .37 .32
South Platte River † (06764880)	Platte River	Lat 40°07'33", long 101°34'35", in NW1/4SW1/4 sec.4, T.13 N., R.37 W., Keith County, at bridge on access road between U.S. Highway 30 and Interstate 80, about 0.5 mile southeast of Roscoe.	--		10-26-76 11-23-76 12-28-76 01-24-77 02-22-77 03-29-77 04-26-77 05-23-77 06-28-77 07-26-77 08-22-77 09-27-77	12 33 156 130 282 843 349 77 56 28 19 7.6
Spring Creek † (06768015)	Platte River	Lat 40°45'13", long 99°40'22", in SW1/4NW1/4 sec.13, T.9 N., R.21 W., Dawson County, 3.2 miles southeast of Lexington.	--	1973-76	02-16-77 03-15-77 05-24-77 09-27-77	2.2 26 202 6.6
North Channel † (06770205)	Platte River	Lat 40°40'30", long 99°00'27", in NW1/4SE1/4 sec.10, T.8 N., R.15 W., Buffalo County, 4 miles east of Kearney.	--	1973-76	11-23-76 02-16-77 03-15-77 07-19-77	12 9.6 12 156
Wood River † (06772200)	Platte River	Lat 40°56'05", long 98°16'56", in SW1/4NW1/4SW1/4 sec.7, T.11 N., R.8 W., Merrick County, at bridge on county road 1.0 mile south of U.S. Highway 30 and 3.0 miles east of Grand Island.	--	1973-76	10-21-76 11-24-76 12-21-76 01-26-77 02-17-77 03-01-77 04-27-77 05-18-77 06-29-77 07-21-77 08-11-77 09-01-77	3.3 8.9 3.6 16 4.5 9.5 13 19 30 34 18 56
Prairie Creek †	Platte River	Lat 40°55'38", long 98°36'27", in SW1/4NW1/4 sec.18, T.11 N., R.11 W., Hall County, at downstream side of bridge on State Highway 11, 5.2 miles south of Cairo.	--		09-02-77	972
Prairie Creek † (06773500)	Platte River	Lat 41°19'54", long 97°41'40", in SW1/4NW1/4 sec.29, T.16 N., R.3 W., Merrick County, at downstream side of bridge on county road 2 miles northwest of Silver Creek.	--		11-11-76	861

See footnotes at end of table

Discharge measurements made at miscellaneous sites during water year 1977--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Platte River Basin--Continued				
Middle Loup River [1] (06777000)	Loup River	Lat 41°49'02", long 99°58'15", in NE1/4SW1/4 sec.3, T.21 N., R.23 W., Blaine County, on right bank at upstream side of Laughran bridge 9 miles upstream from Rifle Creek and 15 miles northwest of Milburn.	--	1952-56*, 1958*, 1960-64*, 1969-76	10-01-76	698
					10-19-76	743
					11-02-76	709
					11-11-76	766
					11-17-76	743
					11-23-76	799
					12-14-76	801
					12-23-76	764
					12-28-76	859
					02-15-77	791
					03-30-77	976
					04-19-77	878
					05-09-77	855
					06-21-77	978
					07-07-77	722
					07-12-77	730
					07-19-77	710
					08-08-77	727
					08-09-77	749
					08-16-77	723
					08-23-77	807
					08-30-77	720
					09-07-77	726
					09-12-77	733
					09-29-77	734
Middle Loup River [1] (06778500)	Loup River	Lat 41°28'49", long 99°12'43", in NW1/4 sec.6, T.17 N., R.16 W., Custer County, at bridge on county-line highway 0.8 mile below part of river known as "Narrows" and 5.5 miles southeast of Comstock.	--	1937*, 1969-76	12-23-76	833
					01-26-77	968
Deer Creek [1] (06781530)	Middle Loup	Lat 41°05'37", long 98°42'37", in SE1/4SE1/4 sec.17, T.13 N., R.12 W., Howard County, at upstream side of bridge on county road 1.2 miles north of Boelus.	--		06-07-77	.29
					07-26-77	.56
					09-23-77	.04
Mud Creek [1] (06783000)	South Loup River	Lat 41°22'30", long 99°35'10", in NW1/4SW1/4NW1/4 sec.11, T.16 N., R.20 W., Custer County, at bridge on State Highway 2 about 3 miles southeast of Broken Bow.	--	1973-76	10-26-76	1.9
					11-16-76	.16
					12-06-76	.34
					01-26-77	.40
					02-15-77	.82
					03-09-77	1.4
					04-19-77	2.3
					05-24-77	1.9
					06-02-77	2.3
					07-14-77	1.8
					08-03-77	30
					09-14-77	1.5
Oak Creek [1] (06784400)	Middle Loup	Lat 41°11'30", long 98°41'25", in SW1/4SW1/4 sec.10, T.14 N., R.12 W., Howard County, at upstream side of bridge on county road 3.6 miles southwest of Farwell.	--		06-08-77	23
					07-26-77	26
					09-23-77	13
Oak Creek [1] (06784500)	Middle loup	Lat 41°07'10", long 98°36'45", in NW1/4NW1/4 sec.6, T.13 N., R.11 W., Howard County, at downstream side of bridge on county road 2 miles west of Dannebrog.	--	1949-57	06-07-77	28
					07-26-77	46
					09-23-77	21
Dry Creek [1] (06784505)	Oak Creek	Lat 41°06'18", long 98°36'16", in NE1/4NW1/4 sec.17, T.13 N., R.11 W., Howard County, at downstream side of bridge on county road 3.3 miles southwest of Dannebrog.	--		06-07-77	1.8
					07-26-77	5.8
					09-23-77	1.5
Turkey Creek [1] (06784750)	Middle Loup River	Lat 41°10'44", long 98°36'50", in SE1/4SE1/4 sec.18, T.14 N., R.11 W., Howard County, at upstream side of bridge on county road 3.1 miles north of Nysted.	--		06-08-77	4.2
					07-26-77	6.9
					09-23-77	2.2
Turkey Creek [1] (06784810)	Middle Loup River	Lat 41°09'26", long 98°31'06", in SE1/4NE1/4 sec.25, T.14 N., R.11 W., Howard County, at upstream side of bridge on county road 3.2 miles northeast of Dannebrog.	--		06-07-77	13
					07-26-77	36
					09-23-77	8.4

Discharge measurements made at miscellaneous sites during water year 1977--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Platte River Basin--Continued				
Turkey Creek Tributary [1] (06784820)	Turkey Creek	Lat 41°10'55", long 98°29'39", in NW1/4SW1/4 sec.17, T.14 N., R.10 W., Howard County, at downstream side of bridge on county road 3 miles southwest of St Paul.	--		06-07-77 07-26-77 09-23-77	.56 3.8 .77
Unnamed Creek [1] (06785020)	Middle Loup River	Lat 41°12'48", long 98°28'35", in SW1/4NW1/4 sec.4, T.14 N., R.10 W., Howard County, at downstream side of bridge on county road near west edge of St Paul.	--		06-07-77 07-26-77 06-23-77	1.5 5.6 .52
Calamus River [1] (06787000)	North Loup River	Lat 41°56'48", long 99°23'10", in NW1/4SE1/4 sec.22, T.23 N., R.18 W., Loup County, at bridge on U.S. Highway 183, 14.1 miles north of Taylor.	--	1931a, 1932#, 1933-39a, 1955-64a	05-09-77 05-10-77	539 453
Dane Creek [1] (06788495)	North Loup River	Lat 98°54'01", long 41°36'31", in NE1/4NE1/4 sec.20, T.19 N., R.14 W., Valley County, at bridge on State Highway 11 at northwest edge of Ord.	--	1962a	04-11-77 07-21-77 09-30-77	.29 313 .70
Myra Creek [1] (06788990)	North Loup River	Lat 41°29'54", long 98°46'46", in SE1/4SW1/4 sec.26, T.18 N., R.13 W., Valley County, at bridge on State Highway 11 at west edge of North Loup.	--		04-11-77 09-30-77	.87 1.6
North Loup River (06789000)	Middle Loup River	Lat 41°27'30", long 98°42'40", in SE1/4 sec.8, T.17 N., R.12 W., Greeley County, 30 ft downstream from railroad bridge, 0.5 mile upstream from Wallace Creek, and 0.9 mile southwest of Scotia.	3,960	1936-70#	08-03-77	82
Auger Creek [1] (06790245)	North Loup River	Lat 41°17'38", long 98°34'26", in SE1/4SE1/4 sec.4, T.15 N., R.11 W., Howard County, at upstream side of bridge on State Highway 11, 0.5 mile north of Elba.	--		06-08-77 07-26-77 09-23-77	.09 0 .29
Unnamed Creek (06790255)	North Loup River	Lat 41°16'22", long 98°33'24", in SE1/4NE1/4 sec.15, T.15 N., R.11 W., Howard County, downstream side of bridge on State Highway 11, 0.5 mile southeast of Elba.	--		06-08-77 07-26-77 09-23-77	.04 .27 .15
Beaver Creek [1] (06793600)	Loup River	Lat 41°41'00", long 95°58'25", in NW1/4NW1/4NE1/4 sec.26, T.20 N., R.6 W., Boone County, at county road bridge 1.3 miles southeast of junction of State Highways 14, 39, and 19 at east edge of Albion.	--	1973-76	10-18-76 11-08-76 12-22-76 01-10-77 02-03-77 03-15-77 04-04-77 05-16-77 06-06-77 07-18-77 08-29-77 09-19-77	41 46 37 31 44 85 95 46 52 23 45 41
Salt Creek [1] (06803080)	Platte River	Lat 40°46'13", long 96°43'05", in SW1/4SW1/4 sec.2, T.9 N., R.6 E., Lancaster County, at bridge on county road 0.9 mile west of U.S. Highway 77 and at northwest corner of State Penitentiary, Lincoln.	221	1971-76	11-10-76 12-22-76 01-20-77 02-15-77 03-03-77 04-13-77 05-03-77 06-16-77 07-06-77 08-23-77 09-06-77	10 7.1 7.0 12 13 10 12 8.5 2.6 16 30
Salt Creek [1] (06803190)	Platte River	Lat 40°50'03", long 96°42'03", in NE1/4SE1/4 sec.14, T.10 N., R.6 E., Lancaster County, at bridge at 14th Street at Lincoln, Nebr., 0.3 mile upstream from confluence with Oak Creek and 2.1 miles downstream from Middle Creek.	411	1971-76	12-23-76 03-02-77 06-13-77 09-07-77	15 33 25 63
Antelope Creek [1] (06803405)	Salt Creek	Lat 40°49'44", long 96°41'58", in SW1/4SW1/4 sec.13, T.10 N., R.6 E., Lancaster County, at bridge on Court Street 0.1 mile upstream from confluence with Salt Creek at Lincoln.	12.4	1971-76	12-22-76 03-02-77 06-13-77 09-07-77	1.5 4.5 2.5 1.6

Discharge measurements made at miscellaneous sites during water year 1977--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Platte River Basin--Continued				
Oak Creek [4] (06803493)	Salt Creek	Lat 40°50'10", long 96°42'03", in SE1/4NE1/4 sec.14, T.10 N., R.6 E., Lancaster County, at bridge on 14th Street 0.2 mile upstream from confluence with Salt Creek, Lincoln.	258	1971-76	12-23-76	8.8
					03-02-77	17
					06-13-77	8.2
					09-07-77	44
Salt Creek [4] (06803525)	Platte River	Lat 40°54'18", long 96°35'09", in NE1/4SE1/4 sec.24, T.11 N., R.7 E., Lancaster County, at bridge 0.5 mile north of Interstate Highway 80 and 3 miles southeast of Waverly.	815	1971-76	10-01-76	57
					11-10-76	71
					12-21-76	66
					01-20-77	54
					02-15-77	50
					03-01-77	62
					04-13-77	115
					05-03-77	220
					06-15-77	70
					07-06-77	48
					08-23-77	126
					09-08-77	150
Salt Creek [4] (06803565)	Platte River	Lat 41°01'34", long 96°24'22", in NW1/4NW1/4 sec.10, T.12 N., R.9 E., Saunders County, at bridge on county road 2 miles southwest of Ashland.	1,110	1971-76	11-09-76	91
					12-21-76	46
					01-19-77	90
					02-08-77	117
					03-01-77	100
					04-13-77	124
					05-03-77	109
					06-15-77	98
					07-06-77	70
					08-23-77	175
					09-08-77	220
Silver Creek (06804495)	Wahoo Creek	Lat 41°12'24", long 96°32'37", in NE1/4NE1/4 sec.6, T.14 N., R.8 E., Saunders County, at bridge on county road 3.9 miles east of intersection of 1st Street and U.S. Highway 77 in Wahoo.	--	1974-76	11-09-76	2.8
					12-20-76	2.5
					01-19-77	3.1
					02-08-77	2.9
					02-28-77	2.6
					04-12-77	3.2
					05-02-77	1.8
					06-14-77	2.9
					07-06-77	2.0
					08-09-77	498
					09-09-77	11
Mill Creek [4] (06805499)	Platte River	Lat 41°00'13", long 96°09'35", in NE1/4SE1/4SE1/4 sec.15, T.12 N., R.11 E., Cass County, at railroad bridge at north edge of Louisville.	--	1973-76	11-02-76	.59
					05-21-77	1.8
					08-09-77	68
					08-16-77	7.7
Cedar Creek [4] (06805525)	Platte River	Lat 41°00'05", long 96°07'15", in SE1/4SE1/4SE1/4 sec.13, T.12 N., R.11 E., Cass County, at bridge on State Highway 66, 2.0 miles east of Louisville.	--	1973-76	11-02-76	.76
					05-21-77	1.6
					07-25-77	9.0
					08-09-77	61
Fourmile Creek [4] (06805563)	Platte River	Lat 41°01'04", long 95°57'46", in SE1/4SW1/4 sec.9, T.12 N., R.13 E., at county road bridge 1 mile north of State Highway 66, 3.25 miles west of Maiden Lane in Plattsmouth, and 3.67 miles upstream from mouth.	--	1975-76	11-02-76	2.5
					05-21-77	4.8
					07-25-77	20
					08-09-77	101
		Weeping Water Creek basin				
Weeping Water Creek [4] (06806460) *	Missouri River	Lat 40°51'10", long 96°07'10", in NW1/4NW1/4 sec.7, T.10 N., R.12 E., Cass County, at bridge of Missouri Pacific Railroad just south of north-south road, 1 mile southeast of Weeping Water.	--	1947, 1950-76	11-02-76	1.5
					05-21-77	3.9
					08-09-77	56
					08-16-77	169
South Branch Weeping Water Creek [4] (06806495)	Weeping Water Creek	Lat 40°48'45", long 95°54'43", in SW1/4SE1/4SW1/4 sec.22, T.10 N., R.13 E., Cass County, at bridge on U.S. Highway 34, 1.1 miles west of Union.	--	1973-76	11-03-76	3.3
					05-21-77	3.7
					07-25-77	27
					08-09-77	1,140
		Kansas River basin				
Big Blue River (06879855)	Kansas River	Lat 41°01'56", long 97°49'33", in NW1/4NW1/4 sec.7, T.12 N., R.4 W., York County, at bridge on county line road 2.5 miles west of Arborville.	--	1970c, 1974-76	10-01-76	0
					06-29-77	.04
					07-29-77	.44
					08-12-77	0

Discharge measurements made at miscellaneous sites during water year 1977--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Kansas River basin--Continued				
Lincoln Creek (06879900)	Big Blue River	Lat 40°54'23", long 97°49'26", NW1/4SW1/4 sec.19, T.11 N., R.4 W., York County, at bridge on county line 4 miles northeast of Hampton.	--	1969-70c, 1974-76	10-01-76 06-29-77 07-29-77 08-12-77	0 1.8 4.3 .93
Lincoln Creek (06879995)	Big Blue River	Lat 40°57'51", long 97°20'44", NE1/4NE1/4 sec.36, T.12 N., R.1 W., Seward County, at county road bridge 4.5 miles north of Utica.	--	1968-70c, 1974-76	10-01-76 06-30-77 07-29-77 08-12-77	4.3 2.3 8.1 11
Big Blue River * (06880520)	Kansas River	Lat 40°52'15", long 97°04'20", in NE1/4NE1/4NE1/4 sec.3, T.10 N., R.3 E., Seward County, at county road bridge 2.5 miles southeast of Seward.	--	1973-76	10-20-76 11-11-76 12-07-76 01-02-77 02-01-77 03-22-77 04-06-77 05-20-77 06-08-77 07-20-77 08-11-77 09-22-77	8.8 8.2 6.0 9.0 9.7 19 23 28 77 24 60 52
West Fork Big Blue River * (06880556)	Big Blue River	Lat 40°36'28", long 98°20'06", in NW1/4NW1/4 sec.3, T.7 N., R.9 W., Adams County, at county road bridge 2 miles northeast of Hastings.	--	1973-76	10-20-76 02-15-77 04-25-77 08-16-77	18 8.9 5.3 22
West Fork Big Blue River (06880559)	Big Blue River	Lat 40°41'41", long 98°03'06", SW1/4NW1/4 sec.6, T.8 N., R.6 W., Clay County, at county road bridge 3.1 miles northwest of Eldorado.	--		06-29-77 07-29-77 08-11-77	16 26 18
West Fork Big Blue River (06880610)	Big Blue River	Lat 40°43'20", long 97°50'35", SW1/4SW1/4 sec.19, T.9 N., R.6 W., Hamilton County, at county road bridge 5.4 miles east of Stockham.	--	1969-70c, 1974-76	10-01-76 06-29-77 07-29-77 08-11-77	15 19 38 35
School Creek (06880745)	West Fork Big Blue River	Lat 40°38'25", long 97°46'58", NE1/4NE1/4 sec.25, T.8 N., R.5 W., Clay County, at county road bridge on county line 3 miles northeast of Sutton.	--	1974-76	06-30-77 07-28-77 08-11-77	.69 9.4 23
West Fork Big Blue River (06880760)	Big Blue River	Lat 40°47'10", long 97°21'53", SE1/4SE1/4 sec.36, T.10 N., R.1 W., Seward County, at bridge on county line 4 miles west of Beaver Crossing.	--	1969-70c, 1974-76	06-30-77 07-28-77 08-11-77	56 50 220
Beaver Creek (06880770)	West Fork Big Blue River	Lat 40°51'32", long 97°49'26", in SW1/4SW1/4 sec.6, T.10 N., R.4 W., York County, at bridge on county-line road 4 miles southeast of Hampton.	--	1969-70c, 1972-76	10-01-76 06-02-77 06-29-77 07-29-77 08-12-77	0 2.6 .42 5.9 .78
Beaver Creek (06880785)	West Fork Big Blue River	Lat 40°47'49", long 97°20'44", NW1/4SE1/4 sec.25, T.10 N., R.1 W., Seward County, at county road bridge 3.5 miles northeast of Beaver Crossing.	--	1968-70c, 1974-76	06-30-77 07-28-77 08-11-77	1.6 3.8 20
Indian Creek (06880788)	West Fork Big Blue River	Lat 40°43'15", long 97°21'53", SE1/4NE1/4 sec.25, T.9 N., R.1 W., Seward County, at bridge on county line 1 mile west of Cordova.	--	1969-70c, 1974-76	06-30-77 07-28-77 08-11-77	.41 0 .57
Turkey Creek (06881110)	Big Blue River	Lat 40°33'12", long 97°22'05", SW1/4SW1/4 sec.19, T.7 N., R.1 E., Saline County, at bridge on county line 3.7 miles northeast of Milligan.	--	1968-69 1976	06-30-77 07-28-77 08-11-77	4.5 14 29
Big Sandy Creek (06883503)	Little Blue River	Lat 40°21'02", long 97°52'37", in SW1/4SW1/4 sec.34, T.5 N., R.5 W., Clay County, at county road bridge 4 miles southwest of Ong.	--	1970c, 1974-76	06-30-77 07-28-77 08-11-77	3.0 58 4.3
Little Sandy Creek (06883590)	Big Sandy Creek	Lat 40°22'56", long 97°49'26", in SE1/4SE1/4 sec.26, T.5 N., R.5 W., Clay County, at county road bridge 1.2 miles southeast of Ong.	--	1970c, 1974-76	06-30-77 07-28-77 08-11-77	3.4 3.1 20
Dry Sandy Creek (06883925)	Big Sandy Creek	Lat 40°21'04", long 97°32'45", SW1/4SE1/4 sec.33, T.5 N., R.2 W., Fillmore County, at bridge on county line 1.8 miles northeast of Bruning.	--	1976	06-30-77 07-28-77 08-11-77	.57 11 9.0

* Also a crest-stage gage.
# Operated as a continuous-record gaging station.
† Also published with additional data in Part 2 of this report.
a Gage heights, or gage heights and discharge measurements only.
b Not previously published.
c Published as a low-flow partial-record station.

Water-quality partial-record stations are particular sites where chemical-quality, biological and or sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are collected usually less than quarterly.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)
NIOBRARA RIVER BASIN										
06465050 - EAGLE CREEK NEAR MIDWAY NEBR (LAT 42 38 02 LONG 098 46 29)										
APR , 1977										
25...	1610	17	259	7.9	18.0	7	120	1	39	4.6
SEP										
26...	1535	13	250	7.7	20.0	11	110	1	36	4.3
06465100 - EASTBRANCH EAGLE CREEK NR MIDWAY NEBR (LAT 42 37 30 LONG 098 45 56)										
APR , 1977										
26...	0920	7.8	292	7.4	8.0	5	130	0	45	4.3
SEP										
27...	0950	5.6	263	7.7	16.5	6	120	0	43	4.2
06465398 - REDBIRD CREEK NR MEEK NEBRASKA (LAT 42 39 33 LONG 098 33 31)										
APR , 1977										
25...	1150	18	204	7.9	22.0	8	89	0	30	3.5
SEP										
26...	1420	19	194	7.8	19.0	8	84	0	29	2.9
06465420 - BLACKBIRD CREEK NEAR MEEK NEBR (LAT 42 39 46 LONG 098 30 24)										
APR , 1977										
25...	1430	6.3	278	7.4	21.0	12	130	1	45	4.8
SEP										
26...	1310	3.0	257	7.5	17.5	9	110	0	38	3.9

DATE	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED FLUORIDE (F) (MG/L) (00950)
06465050 - EAGLE CREEK NEAR MIDWAY NEBR (LAT 42 38 02 LONG 098 46 29)									
APR , 1977									
25...	9.5	.4	5.8	140	0	110	9.7	3.6	.3
SEP									
26...	8.9	.4	6.0	130	0	110	6.7	3.8	.2
06465100 - EASTBRANCH EAGLE CREEK NR MIDWAY NEBR (LAT 42 37 30 LONG 098 45 56)									
APR , 1977									
26...	6.7	.3	4.6	160	0	130	4.5	1.6	.3
SEP									
27...	6.7	.3	5.2	160	0	130	5.2	1.7	.3
06465398 - REDBIRD CREEK NR MEEK NEBRASKA (LAT 42 39 33 LONG 098 33 31)									
APR , 1977									
25...	7.6	.3	4.3	110	0	90	8.9	2.1	.3
SEP									
26...	6.9	.3	5.0	110	0	90	5.5	7.8	.2
06465420 - BLACKBIRD CREEK NEAR MEEK NEBR (LAT 42 39 46 LONG 098 30 24)									
APR , 1977									
25...	9.1	.3	5.0	160	0	130	10	2.7	.4
SEP									
26...	7.7	.3	5.3	140	0	110	5.9	2.3	.2

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)
NIOBRARA RIVER BASIN--Continued									
06465050 - EAGLE CREEK NEAR MIDWAY NEBR (LAT 42 38 02 LONG 098 46 29)									
APR , 1977									
25...	38	194	.26	8.90	3.2	.13	30	40	10
SEP									
26...	45	190	.26	6.67	3.1	.09	30	0	1
06465100 - EASTBRANCH EAGLE CREEK NR MIDWAY NEBR (LAT 42 37 30 LONG 098 45 56)									
APR , 1977									
26...	47	197	.27	4.15	.96	.04	20	40	20
SEP									
27...	54	201	.27	3.04	.79	.02	30	10	10
06465398 - REDBIRD CREEK NR MEEK NEBRASKA (LAT 42 39 33 LONG 098 33 31)									
APR , 1977									
25...	39	157	.21	5.93	1.6	.08	30	80	10
SEP									
26...	50	168	.23	4.54	1.4	.07	30	20	0
06465420 - BLACKBIRD CREEK NEAR MEEK NEBR (LAT 42 39 46 LONG 098 36 20)									
APR , 1977									
25...	42	203	.28	3.45	1.2	.06	40	50	30
SEP									
26...	46	185	.25	1.95	1.4	.05	50	20	0

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)
PLATTE RIVER BASIN								
06779860 - FARWELL CANAL AT HWY 58 ABV SHERMAN RES NE (LAT 41 22 23 LONG 098 58 46)								
JUN , 1977 08...	1530	100	224	7.9	25.5	89	0	26
JUL 27...	1040	273	218	8.6	23.0	83	0	24
SEP 22...	1350	410	216	8.0	20.0	77	0	22
06781530 - DEER CREEK NEAR BOELUS NE (LAT 41 05 37 LONG 098 42 57)								
JUN , 1977 07...	1630	.29	1120	7.8	22.0	610	110	180
JUL 26...	1400	.56	387	7.5	24.5	160	0	47
SEP 23...	1035	.04	850	8.0	20.5	440	71	130
06784000 - OAK CREEK NEAR FARWELL NE (LAT 41 11 30 LONG 098 41 25)								
JUN , 1977 08...	1145	23	460	7.6	20.5	210	0	62
JUL 26...	1445	26	450	7.8	23.5	190	0	56
SEP 23...	1530	13	620	8.0	19.5	300	0	88

DATE	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	BICARBONATE (HCO3) (MG/L) (00440)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)
06779860 - FARWELL CANAL AT HWY 58 ABV SHERMAN RES NE (LAT 41 22 23 LONG 098 58 46)								
JUN , 1977 08...	6.1	8.7	.4	120	98	7.0	1.3	.03
JUL 27...	5.9	7.5	.4	110	90	5.7	1.0	.10
SEP 22...	5.5	7.0	.3	110	90	5.0	6.2	.09
06781530 - DEER CREEK NEAR BOELUS NE (LAT 41 05 37 LONG 098 42 57)								
JUN , 1977 07...	38	19	.3	600	492	110	15	1.6
JUL 26...	8.8	9.3	.3	200	164	18	3.1	.51
SEP 23...	28	18	.3	450	369	96	11	.21
06784000 - OAK CREEK NEAR FARWELL NE (LAT 41 11 30 LONG 098 41 25)								
JUN , 1977 08...	13	18	.6	260	213	13	4.5	1.1
JUL 26...	12	18	.6	260	213	12	3.8	1.2
SEP 23...	20	17	.6	370	303	16	7.0	1.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

PLATTE RIVER BASIN--Continued

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)
06784500 - OAK CREEK NR DANNEBROG NEBR (LAT 41 07 10 LONG 098 36 45)								
JUN , 1977								
07...	1400	20	565	7.6	21.0	260	2	78
JUL								
26...	1220	46	401	7.8	22.0	190	0	57
SEP								
23...	1515	21	698	8.0	21.0	320	2	96
06784905 - DRY C NR DANNEBROG NE (LAT 41 06 18 LONG 098 36 16)								
JUN , 1977								
07...	1515	1.0	925	7.9	19.5	440	83	130
JUL								
26...	1300	5.6	412	7.8	22.0	170	0	50
SEP								
23...	1355	1.5	866	8.1	20.5	410	58	120
06784750 - TURKEY CREEK NEAR NYSTED NE (LAT 41 10 48 LONG 098 36 50)								
JUN , 1977								
08...	1100	4.2	820	7.9	20.0	320	0	87
JUL								
26...	1530	8.9	450	7.6	25.0	180	0	52
SEP								
23...	1630	2.2	832	8.2	20.0	350	0	93

DATE	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	BICARBONATE (HCO3) (MG/L) (00440)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)
06784500 - OAK CREEK NR DANNEBROG NEBR (LAT 41 07 10 LONG 098 36 45)								
JUN , 1977								
07...	15	16	.4	310	254	29	6.6	1.0
JUL								
26...	11	14	.4	240	197	21	4.2	1.0
SEP								
23...	20	19	.5	390	320	32	8.2	1.7
06784905 - DRY C NR DANNEBROG NE (LAT 41 06 18 LONG 098 36 16)								
JUN , 1977								
07...	27	29	.6	430	353	100	13	3.9
JUL								
26...	11	13	.4	210	172	20	3.4	.96
SEP								
23...	26	28	.6	450	369	97	16	3.1
06784750 - TURKEY CREEK NEAR NYSTED NE (LAT 41 10 48 LONG 098 36 50)								
JUN , 1977								
08...	26	55	1.3	450	369	45	12	3.2
JUL								
26...	12	21	.7	250	205	19	4.7	1.5
SEP								
23...	28	48	1.1	490	402	60	14	2.6

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

PLATTE RIVER BASIN--Continued

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)
06786810 - TURKEY CREEK NORTHEAST OF DANNEBROG NE (LAT 41 09 28 LONG 098 31 06)								
JUN , 1977 07...	1200	13	890	7.7	18.0	360	0	100
JUL 26...	1100	56	390	7.6	22.0	180	0	55
SEP 23...	1140	8.4	860	7.8	20.0	350	0	100
06786820 - TURKEY CREEK TRIBUTARY NR ST PAUL NE (LAT 41 10 55 LONG 098 29 39)								
JUN , 1977 07...	1115	.56	610	7.7	19.0	300	12	85
JUL 26...	1015	3.0	357	7.6	21.0	150	0	44
SEP 23...	1115	.77	650	8.1	20.0	340	17	97
06785020 - UNNAMED CREEK AT ST PAUL NE (LAT 41 12 48 LONG 098 28 35)								
JUN , 1977 07...	1030	.15	450	7.8	19.0	210	0	57
JUL 26...	0945	5.6	301	7.8	22.0	120	0	37
SEP 23...	1045	.52	730	7.9	19.0	270	0	72

DATE	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	BICARBONATE (HCO3) (MG/L) (00440)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)
06786810 - TURKEY CREEK NORTHEAST OF DANNEBROG NE (LAT 41 09 28 LONG 098 31 06)								
JUN , 1977 07...	26	65	1.0	440	361	66	15	6.0
JUL 26...	10	17	.6	200	164	21	6.6	1.7
SEP 23...	25	41	1.0	440	361	62	22	5.8
06786820 - TURKEY CREEK TRIBUTARY NR ST PAUL NE (LAT 41 10 55 LONG 098 29 39)								
JUN , 1977 07...	21	12	.3	350	287	27	3.7	.03
JUL 26...	9.9	6.6	.3	200	164	4.3	3.1	3.0
SEP 23...	23	12	.3	390	320	29	5.0	1.0
06785020 - UNNAMED CREEK AT ST PAUL NE (LAT 41 12 48 LONG 098 28 35)								
JUN , 1977 07...	17	7.6	.2	260	213	9.7	2.6	.01
JUL 26...	7.5	6.1	.3	170	139	7.9	1.7	.02
SEP 23...	22	30	.5	350	287	22	51	.27

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

PLATTE RIVER BASIN--Continued

06788495 - DANE C AT ORD, NEBR. (LAT 41 36 31 LONG 098 56 36)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)
APR , 1977										
11...	0920	.29	742	7.3	14.5	55	360	0	110	21
SEP										
30...	1330	.70	657	7.4	16.5	11	300	7	93	17

06788990 - MIRA C AT NORTH LOUP, NEBR. (LAT 41 29 54 LONG 098 46 46)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)
APR , 1977										
11...	1050	.87	660	7.6	17.0	47	300	0	84	23
SEP										
30...	1050	1.6	621	7.5	16.0	18	300	0	83	22

06788495 - DANE C AT ORD, NEBR. (LAT 41 36 31 LONG 098 56 36)

DATE	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED FLUORIDE (F) (MG/L) (00950)
APR , 1977									
11...	28	.6	20	440	0	360	50	13	.3
SEP									
30...	20	.5	15	360	0	300	36	8.7	.5

06788990 - MIRA C AT NORTH LOUP, NEBR. (LAT 41 29 54 LONG 098 46 46)

DATE	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED FLUORIDE (F) (MG/L) (00950)
APR , 1977									
11...	23	.6	16	400	0	330	32	7.8	.3
SEP									
30...	24	.6	17	380	0	310	43	7.1	.6

06788495 - DANE C AT ORD, NEBR. (LAT 41 36 31 LONG 098 56 36)

DATE	DISSOLVED SILICA (SIO2) (MG/L) (00955)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	DISSOLVED SOLIDS (TONS PER DAY) (70302)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)	DISSOLVED BORON (B) (UG/L) (01020)	DISSOLVED IRON (FE) (UG/L) (01046)	DISSOLVED MANGANESE (MN) (UG/L) (01056)
APR , 1977									
11...	39	499	.68	.39	.89	.50	90	60	860
SEP									
30...	53	433	.59	.82	2.6	.39	80	50	310

06788990 - MIRA C AT NORTH LOUP, NEBR. (LAT 41 29 54 LONG 098 46 46)

DATE	DISSOLVED SILICA (SIO2) (MG/L) (00955)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	DISSOLVED SOLIDS (TONS PER DAY) (70302)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)	DISSOLVED BORON (B) (UG/L) (01020)	DISSOLVED IRON (FE) (UG/L) (01046)	DISSOLVED MANGANESE (MN) (UG/L) (01056)
APR , 1977									
11...	34	422	.57	.99	.93	.31	100	30	840
SEP									
30...	46	440	.60	1.90	2.1	.43	110	90	260

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

PLATTE RIVER BASIN--Continued

06790245 - AUGER CREEK AT ELBA NE (LAT 41 17 38 LONG 098 34 26)

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)
JUN , 1977 08...	0915	.09	662	7.7	18.5	320	22	89
SEP 23...	0930	.29	728	8.0	18.0	340	7	98

06790255 - UNNAMED CREEK SOUTH OF ELBA NE (LAT 41 16 22 LONG 098 33 24)

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)
JUN , 1977 08...	1000	.04	536	8.1	20.5	270	0	73
JUL 26...	1615	.27	284	7.9	28.0	110	0	33
SEP 23...	1000	.15	532	8.2	19.0	260	0	73

06790245 - AUGER CREEK AT ELBA NE (LAT 41 17 38 LONG 098 34 26)

DATE	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	BICAR-BONATE (HCO3) (MG/L) (00440)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)
JUN , 1977 08...	23	18	.4	360	295	45	9.3	.23
SEP 23...	24	18	.4	410	336	39	17	.55

06790255 - UNNAMED CREEK SOUTH OF ELBA NE (LAT 41 16 22 LONG 098 33 24)

DATE	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	BICAR-BONATE (HCO3) (MG/L) (00440)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)
JUN , 1977 08...	21	11	.3	340	279	10	3.5	.12
JUL 26...	6.8	8.2	.3	150	123	6.9	1.8	.02
SEP 23...	20	10	.3	340	279	9.2	3.6	.04

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

PLATTE RIVER BASIN--Continued

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (JTU) (00070)	DIS-SOLVED OXYGEN (MG/L) (00300)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLI-FORM ,.7UM-MF (COL./100 ML) (31625)
06801330 - SALT CREEK NEAR ROCA, NEBR. (LAT 40 38 41 LONG 096 41 11)										
DEC , 1976										
22...	0915	4.5	1770	7.8	.5	--	7	13.6	1.5	390
MAR , 1977										
03...	1020	4.5	1390	7.5	1.0	11	7	11.7	2.8	330
JUN										
17...	1300	4.0	1900	7.7	23.0	--	45	6.2	4.5	590
SEP										
06...	1130	8.8	2040	7.9	21.0	12	320	6.7	2.6	13000
06803190 - SALT CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 03 LONG 096 42 03)										
DEC , 1976										
23...	0915	15	11500	7.6	.0	--	7	9.9	2.2	593
MAR , 1977										
02...	1015	33	7020	7.9	2.5	12	25	12.7	5.8	1230
JUN										
13...	1250	25	8650	8.3	23.0	--	10	13.6	5.0	2800
SEP										
07...	0945	63	4450	7.7	22.0	47	90	7.1	4.9	4200
06803485 - ANTELOPE CREEK AT COURT STREET, AT LINCOLN, NEBR (LAT 40 49 44 LONG 096 41 58)										
DEC , 1976										
22...	1145	1.5	7310	8.1	7.0	--	20	11.7	4.1	67
MAR , 1977										
02...	0930	4.5	3070	7.5	6.0	45	150	9.1	11	400
JUN										
13...	1215	2.5	3700	8.4	22.0	--	5	14.4	9.6	2000
SEP										
07...	0825	1.6	4800	7.7	20.5	--	4	8.5	2.3	1170
07...	1530	1.6	4000	8.0	27.0	6	25	--	3.6	--

DATE	STREP-TOCOCCI (COL-ONIES PER 100 ML) (31679)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)
06801330 - SALT CREEK NEAR ROCA, NEBR. (LAT 40 38 41 LONG 096 41 11)										
DEC , 1976										
22...	180	--	--	--	--	--	--	--	--	--
MAR , 1977										
03...	967	310	120	91	19	160	4.0	7.5	229	0
JUN										
17...	1120	--	--	--	--	--	--	--	--	--
SEP										
06...	--	410	230	120	27	290	6.2	12	220	0
06803190 - SALT CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 03 LONG 096 42 03)										
DEC , 1976										
23...	220	--	--	--	--	--	--	--	--	--
MAR , 1977										
02...	512	360	110	93	32	1600	37	10	312	0
JUN										
13...	2000	--	--	--	--	--	--	--	--	--
SEP										
07...	--	260	82	69	22	800	21	16	220	0
06803485 - ANTELOPE CREEK AT COURT STREET, AT LINCOLN, NEBR (LAT 40 49 44 LONG 096 41 58)										
DEC , 1976										
22...	280	--	--	--	--	--	--	--	--	--
MAR , 1977										
02...	5500	200	78	58	14	560	17	10	152	0
JUN										
13...	10000	--	--	--	--	--	--	--	--	--
SEP										
07...	--	--	--	--	--	--	--	--	--	--
07...	--	350	150	97	25	730	17	12	280	0

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

PLATTE RIVER BASIN--Continued

06801330 - SALT CREEK NEAR ROCA, NEBR. (LAT 40 38 41 LONG 096 41 11)

DATE	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)
DEC , 1976 22...	--	--	320	--	--	1080	--	1.47	13.1	.61
MAR , 1977 03...	108	130	250	.5	15	824	766	1.12	10.0	.32
JUN 17...	--	--	430	--	--	1230	--	1.67	13.3	.08
SEP 06...	100	230	440	.6	22	1270	1250	1.73	30.2	.08

06803190 - SALT CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 03 LONG 096 42 03)

DATE	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)
DEC , 1976 23...	--	--	3500	--	--	6830	--	9.29	277	.32
MAR , 1977 02...	256	340	2400	.6	12	4630	4640	6.30	413	.24
JUN 13...	--	--	2700	--	--	5530	--	7.52	373	.15
SEP 07...	180	220	1200	.5	17	2610	2450	3.55	444	.03

06803465 - ANTELOPE CREEK AT COURT STREET, AT LINCOLN, NEBR (LAT 40 49 46 LONG 096 41 58)

DATE	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)
DEC , 1976 22...	--	--	2200	--	--	4190	--	5.70	17.0	4.9
MAR , 1977 02...	125	130	820	.3	13	1740	1600	2.37	21.1	2.0
JUN 13...	--	--	1100	--	--	2260	--	3.07	15.3	2.0
SEP 07...	--	--	--	--	--	--	--	--	--	--
07...	200	230	1100	.7	33	2440	2350	3.32	10.5	3.0

06801330 - SALT CREEK NEAR ROCA, NEBR. (LAT 40 38 41 LONG 096 41 11)

DATE	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO-GEN (N) (MG/L) (00605)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L) (00625)	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOL-VED PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)
DEC , 1976 22...	.00	.32	.32	.93	.09	--	--	--	--
MAR , 1977 03...	.01	.37	.38	.70	.29	.26	460	--	--
JUN 17...	.25	1.1	1.3	1.8	.46	--	--	--	--
SEP 06...	.08	.52	.60	1.1	.47	.33	540	--	--

06803190 - SALT CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 03 LONG 096 42 03)

DATE	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO-GEN (N) (MG/L) (00605)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L) (00625)	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOL-VED PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)
DEC , 1976 23...	.57	.53	1.1	1.4	.21	--	--	--	--
MAR , 1977 02...	.26	.32	.58	.82	.20	.16	620	--	--
JUN 13...	.14	1.2	1.3	1.5	.31	--	--	--	--
SEP 07...	.50	.60	1.1	1.9	.55	.29	380	--	--

06803465 - ANTELOPE CREEK AT COURT STREET, AT LINCOLN, NEBR (LAT 40 49 46 LONG 096 41 58)

DATE	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO-GEN (N) (MG/L) (00605)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L) (00625)	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOL-VED PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)
DEC , 1976 22...	.08	.67	.75	5.7	.51	--	--	--	--
MAR , 1977 02...	.09	2.0	2.1	4.5	.30	.38	260	--	--
JUN 13...	.15	.95	1.1	3.1	.50	--	--	--	--
SEP 07...	--	--	--	--	--	--	--	--	--
07...	.09	.23	.32	3.3	.60	.53	230	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

PLATTE RIVER BASIN--Continued

06803493 - OAK CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 10 LONG 096 42 03)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)
DEC , 1976 23...	1030	8.8	10200	7.7	.0	--	7	11.9	1.9	50
MAR , 1977 02...	1045	17	7420	8.0	2.0	12	20	12.6	4.8	33
JUN 13...	1315	8.2	11200	8.0	21.5	--	35	11.8	8.2	510
SEP 07...	0900	44	3480	7.9	22.5	35	90	7.4	3.8	3100

06803510 - LITTLE SALT CREEK NEAR LINCOLN, NEBR. (LAT 40 53 36 LONG 096 40 52)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)
JUL , 1977 11...	1100	129	1550	7.2	21.0	520	1500	4.4	11	200000
AUG 31...	0930	282	605	7.6	20.0	450	500	--	7.6	68000

06803523 - STEVENS CREEK AT HIGHWAY 6, NEAR LINCOLN, NEBR. (LAT 40 52 35 LONG 096 36 16)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)
JAN , 1977 13...	1000	1.0	804	7.7	.0	30	5	10.3	3.4	16000
MAR 03...	1115	1.7	542	8.2	2.5	25	7	14.5	2.9	6400
JUN 16...	1215	.24	548	7.9	25.0	55	30	7.5	13	8433
SEP 07...	1115	5.8	485	7.8	23.0	37	95	5.7	3.0	857

06803493 - OAK CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 10 LONG 096 42 03)

DATE	STREPTOCOCCI (COLONIES PER 100 ML) (31679)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)
DEC , 1976 23...	92	--	--	--	--	--	--	--	--	--
MAR , 1977 02...	32	380	50	100	31	1500	34	12	399	0
JUN 13...	2100	--	--	--	--	--	--	--	--	--
SEP 07...	--	240	36	67	18	670	19	13	250	0

06803510 - LITTLE SALT CREEK NEAR LINCOLN, NEBR. (LAT 40 53 36 LONG 096 40 52)

DATE	STREPTOCOCCI (COLONIES PER 100 ML) (31679)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)
JUL , 1977 11...	--	110	40	29	8.1	280	12	13	80	0
AUG 31...	--	62	0	18	4.2	110	6.1	10	83	0

06803523 - STEVENS CREEK AT HIGHWAY 6, NEAR LINCOLN, NEBR. (LAT 40 52 35 LONG 096 36 16)

DATE	STREPTOCOCCI (COLONIES PER 100 ML) (31679)	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)
JAN , 1977 13...	2000	330	0	94	23	52	1.2	5.1	447	0
MAR 03...	700	210	0	61	15	37	1.1	4.2	274	0
JUN 16...	780	240	0	67	17	37	1.0	11	300	0
SEP 07...	--	180	7	52	12	31	1.0	9.1	210	0

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)
PLATTE RIVER BASIN--Continued										
06803493 - OAK CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 10 LONG 096 42 03)										
DEC , 1976 23...	--	--	2900	--	--	6020	--	8.19	163	.76
MAR , 1977 02...	327	220	2200	.4	15	4350	4280	5.92	200	.32
JUN 13...	--	--	3900	--	--	7380	--	10.0	163	.05
SEP 07...	210	130	960	.5	16	1900	2000	2.58	226	.08
06803510 - LITTLE SALT CREEK NEAR LINCOLN, NEBR. (LAT 40 53 36 LONG 096 40 52)										
JUL , 1977 11...	66	120	300	.4	6.1	889	876	1.21	310	2.1
AUG 31...	68	46	140	.3	9.8	388	379	.53	295	.93
06803523 - STEVENS CREEK AT HIGHWAY 6, NEAR LINCOLN, NEBR. (LAT 40 52 35 LONG 096 36 16)										
JAN , 1977 13...	367	69	17	.3	29	506	510	.69	1.37	.94
MAR 03...	225	51	11	.2	--	310	--	.43	1.46	.30
JUN 16...	250	51	18	.5	19	361	369	.49	.23	.43
SEP 07...	170	56	12	.3	20	307	296	.42	4.01	1.4

DATE	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO-GEN (N) (MG/L) (00605)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L) (00625)	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)
06803493 - OAK CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 10 LONG 096 42 03)									
DEC , 1976 23...	.83	.37	1.2	2.0	.20	--	--	--	--
MAR , 1977 02...	.56	.41	.97	1.3	.15	.12	480	--	--
JUN 13...	.34	2.2	2.5	2.6	.33	--	--	--	--
SEP 07...	.50	.42	.92	1.0	.33	.16	280	--	--
06803510 - LITTLE SALT CREEK NEAR LINCOLN, NEBR. (LAT 40 53 36 LONG 096 40 52)									
JUL , 1977 11...	.90	9.1	10	12	1.3	.22	310	--	--
AUG 31...	.47	7.6	8.1	9.0	4.3	.23	50	--	--
06803523 - STEVENS CREEK AT HIGHWAY 6, NEAR LINCOLN, NEBR. (LAT 40 52 35 LONG 096 36 16)									
JAN , 1977 13...	.84	.56	1.4	2.3	.51	.47	170	--	--
MAR 03...	.33	.24	.57	.87	.26	.22	110	--	--
JUN 16...	.30	4.0	4.3	4.7	.71	.23	230	--	--
SEP 07...	.39	.55	.94	2.3	.45	.29	100	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

PLATTE RIVER BASIN--Continued

06803534 - ROCK CREEK NEAR GREENWOOD, NEBR (LAT 40 57 55 LONG 096 29 52)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)
APR , 1977												
29...	1300	6.0	610	8.6	17.5	15	12.5	.17	1.7	.80	2.5	2.7
29...	1415	6.0	625	8.8	18.0	15	9.4	.25	15	11	26	26
29...	1530	6.0	625	9.0	20.0	--	6.6	.28	39	4.0	43	43

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

PLATTE RIVER BASIN--Continued

06805499 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 13 LONG 096 09 35)

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (JTU) (00070)	DIS-SOLVED OXYGEN (MG/L) (00300)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLI-FORM ,7UM-MF (COL./100 ML) (31625)
NOV , 1976										
02...	0945	.59	463	8.1	4.5	12	8	10.0	6.8	1570
MAY , 1977										
21...	1155	1.8	415	7.8	20.5	12	25	7.8	4.6	6700
AUG										
09...	1150	68	228	7.0	21.0	420	1100	6.2	10	--
16...	1030	7.7	317	6.9	20.5	300	--	6.0	12	>1340000

06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (JTU) (00070)	DIS-SOLVED OXYGEN (MG/L) (00300)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLI-FORM ,7UM-MF (COL./100 ML) (31625)
NOV , 1976										
02...	1015	.76	507	8.3	7.5	18	10	8.0	23	52
MAY , 1977										
21...	1245	1.6	410	7.7	21.5	35	25	6.5	9.2	16700
JUL										
25...	1400	9.0	190	7.6	25.0	360	--	6.0	35	45000
AUG										
09...	1645	61	155	6.8	23.0	280	800	6.0	14	198000

06805565 - FOURMILE CREEK NEAR PLATTSMOUTH, NEBR. (LAT 41 01 02 LONG 095 57 46)

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (JTU) (00070)	DIS-SOLVED OXYGEN (MG/L) (00300)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLI-FORM ,7UM-MF (COL./100 ML) (31625)
NOV , 1976										
02...	1130	2.5	483	8.3	8.0	6	8	10.9	5.7	267
MAY , 1977										
21...	1330	4.8	390	8.0	22.0	43	120	8.3	7.6	13300
JUL										
25...	1330	20	230	7.7	25.5	210	--	9.4	11	68000
AUG										
09...	1520	181	125	7.1	24.0	360	600	6.9	12	K200000

06805499 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 13 LONG 096 09 35)

DATE	STREP-TOCOCCI (COL-ONIES PER 100 ML) (31679)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)
NOV , 1976										
02...	--	200	0	56	14	21	.7	5.8	244	0
MAY , 1977										
21...	--	170	0	50	11	23	.8	6.2	210	0
AUG										
09...	--	61	0	18	4.0	9.3	.5	14	79	0
16...	--	--	--	--	7.0	14	--	17	130	0

06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)

DATE	STREP-TOCOCCI (COL-ONIES PER 100 ML) (31679)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)
NOV , 1976										
02...	--	220	0	60	16	24	.7	7.0	271	0
MAY , 1977										
21...	--	200	0	55	15	22	.7	8.1	260	0
JUL										
25...	--	59	10	17	4.1	7.4	.4	11	60	0
AUG										
09...	--	57	0	17	3.6	8.7	.5	9.0	75	0

06805565 - FOURMILE CREEK NEAR PLATTSMOUTH, NEBR. (LAT 41 01 02 LONG 095 57 46)

DATE	STREP-TOCOCCI (COL-ONIES PER 100 ML) (31679)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)
NOV , 1976										
02...	--	230	0	64	18	18	.5	3.4	286	0
MAY , 1977										
21...	--	170	9	48	13	15	.5	5.2	200	0
JUL										
25...	--	93	3	26	6.8	8.4	.4	6.8	110	0
AUG										
09...	--	38	4	11	2.5	4.5	.3	6.7	41	0

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)
PLATTE RIVER BASIN--Continued										
06805499 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 13 LONG 096 09 35)										
NOV , 1976										
02...	200	25	7.1	.4	12	276	262	.38	.44	1.1
MAY , 1977										
21...	170	28	18	.4	20	251	261	.34	1.22	.93
AUG										
09...	65	16	8.0	.4	6.9	139	116	.19	25.6	1.5
16...	110	23	14	.4	12	206	--	.28	6.28	1.0
06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)										
NOV , 1976										
02...	222	25	8.1	.3	15	307	289	.42	.63	.50
MAY , 1977										
21...	210	24	5.0	.4	16	273	274	.37	1.19	.90
JUL										
25...	49	20	4.2	.3	10	145	104	.20	3.52	2.1
AUG										
09...	62	12	4.1	.3	7.7	110	100	.15	10.1	1.6
06805565 - FOURMILE CREEK NEAR PLATTSMOUTH, NEBR. (LAT 41 01 02 LONG 095 57 46)										
NOV , 1976										
02...	235	22	4.4	.3	20	296	292	.40	2.00	2.8
MAY , 1977										
21...	160	27	4.9	.4	19	239	232	.33	3.10	2.0
JUL										
28...	90	14	3.1	.3	11	150	131	.20	8.10	1.4
AUG										
09...	38	7.5	4.4	.2	5.2	81	63	.11	39.0	1.2

DATE	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO-GEN (N) (MG/L) (00605)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L) (00625)	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)
06805499 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 13 LONG 096 09 35)									
NOV , 1976									
02...	.02	.70	.72	1.8	.13	.12	50	140	100
MAY , 1977									
21...	.19	.29	.48	1.4	.43	.33	70	20	410
AUG									
09...	.69	14	15	17	4.1	.60	90	260	90
16...	.51	7.0	7.5	8.9	1.5	.40	120	80	260
06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)									
NOV , 1976									
02...	.00	.67	.67	1.2	.16	.14	50	50	100
MAY , 1977									
21...	.32	.98	1.3	2.2	.44	.31	60	50	560
JUL									
25...	.69	3.9	4.6	6.7	.89	.23	90	80	330
AUG									
09...	.72	11	12	14	3.8	.33	80	200	310
06805565 - FOURMILE CREEK NEAR PLATTSMOUTH, NEBR. (LAT 41 01 02 LONG 095 57 46)									
NOV , 1976									
02...	.01	.70	.71	3.1	.21	.15	50	20	510
MAY , 1977									
21...	.29	1.1	1.4	3.4	.69	.36	50	30	450
JUL									
25...	.53	4.4	4.9	6.3	.96	.15	70	120	420
AUG									
09...	.34	2.9	3.2	4.4	.95	.26	60	250	160

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SUSPENDED SEDIMENT (MG/L) (80154)	SUSPENDED SEDIMENT DISCHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)
PLATTE RIVER BASIN--Continued												
06805490 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 15 LONG 096 09 55)												
AUG , 1977												
09...	1150	68	21.0	8360	1540	35	45	68	98	100	--	--
16...	1030	7.7	21.0	1790	37	67	81	93	98	99	100	--
06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)												
JUL , 1977												
25...	1440	9.0	25.0	1170	28	92	93	--	96	--	--	--
AUG												
09...	1645	61	23.0	5400	889	69	76	87	98	100	--	--
06805565 - FOURMILE CREEK NEAR PLATTSMOUTH, NEBR. (LAT 41 01 02 LONG 095 57 46)												
JUL , 1977												
25...	1400	20	25.5	1430	77	--	--	--	92	--	--	--
AUG												
09...	1520	181	24.0	7830	3830	38	46	56	95	97	99	100

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	NUMBER OF SAMPLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
06805490 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 15 LONG 096 09 55)												
AUG , 1977												
09...	1150	68	1	--	0	9	55	90	96	98	99	100
16...	1030	7.7	2	--	0	4	24	47	58	75	83	100
06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)												
JUL , 1977												
25...	1440	9.0	6	83	93	96	98	100	--	--	--	--
AUG												
09...	1645	61	2	92	94	97	98	98	99	100	--	--
06805565 - FOURMILE CREEK NEAR PLATTSMOUTH, NEBR. (LAT 41 01 02 LONG 095 57 46)												
JUL , 1977												
25...	1400	20	2	90	93	95	96	98	98	98	99	100
AUG												
09...	1520	181	2	78	82	86	87	91	95	97	100	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

WEEPING WATER CREEK BASIN

06806500 - WEEPING WATER CK AT WEEPING WATER, NEBR. (LAT 40 51 18 LONG 096 07 10)

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (JTU) (00070)	DIS-SOLVED OXYGEN (MG/L) (00300)	FECAL COLI-FORM, .7UM-MF (COL./100 ML) (31625)	HARD-NESS (CA,MG) (MG/L) (00900)
NOV., 1976										
02...	1330	1.5	645	7.6	6.5	25	10	9.9	150	300
MAY, 1977										
21...	1500	5.9	620	7.7	20.0	23	20	6.6	460	220
AUG										
09...	1045	56	368	6.9	22.0	90	600	6.0	195000	110
16...	1250	108	385	7.3	25.0	190	--	8.1	67000	110

06806495 - S FK WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 43)

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (JTU) (00070)	DIS-SOLVED OXYGEN (MG/L) (00300)	FECAL COLI-FORM, .7UM-MF (COL./100 ML) (31625)	HARD-NESS (CA,MG) (MG/L) (00900)
NOV., 1976										
05...	1045	5.3	413	7.5	6.5	8	15	10.9	133	190
MAY, 1977										
21...	1410	5.7	405	7.9	22.0	12	30	8.9	1070	180
JUL										
28...	1235	27	172	7.6	20.0	360	--	7.2	850000	58
AUG										
09...	1015	1160	110	7.0	25.0	500	1100	5.4	192000	37

06806500 - WEEPING WATER CK AT WEEPING WATER, NEBR. (LAT 40 51 18 LONG 096 07 10)

DATE	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)
NOV., 1976									
02...	34	84	22	62	1.6	8.1	324	0	266
MAY, 1977									
21...	0	60	16	58	1.7	6.6	320	0	262
AUG									
09...	17	32	6.6	19	.8	8.3	110	0	90
16...	0	33	7.7	29	1.2	9.9	170	0	140

06806495 - S FK WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 43)

DATE	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)
NOV., 1976									
05...	0	55	12	21	.7	4.6	243	0	199
MAY, 1977									
21...	0	51	12	19	.6	3.5	230	0	189
JUL									
28...	5	17	3.9	5.1	.3	9.5	65	0	53
AUG									
09...	0	11	2.2	3.1	.2	6.1	50	0	41

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

WEEPING WATER CREEK BASIN--Continued

06806460 - WEEPING WATER CR AT WEEPING WATER, NEBR. (LAT 40 51 10 LONG 096 07 10)

DATE	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)
NOV , 1976 02...	120	29	.6	16	525	503	.71	2.13	.71
MAY , 1977 21...	98	15	.7	11	376	370	.51	5.96	.06
AUG 09...	31	12	.6	7.5	190	171	.26	20.1	.09
16...	41	5.9	.5	7.5	231	219	.31	109	.72

06806495 - S BR WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 45)

DATE	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)
NOV , 1976 03...	20	3.6	.3	21	268	258	.36	2.90	1.7
MAY , 1977 21...	20	6.6	.6	20	238	205	.32	2.50	1.2
JUL 25...	10	3.6	.3	7.5	128	90	.17	9.11	2.0
AUG 09...	6.7	2.6	.3	5.7	85	[illegible]	.12	262	.76

06806460 - WEEPING WATER CR AT WEEPING WATER, NEBR. (LAT 40 51 10 LONG 096 07 10)

DATE	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO-GEN (N) (MG/L) (00605)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L) (00625)	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOL-VED PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)
NOV , 1976 02...	4.0	1.0	5.0	6.5	7.5	7.1	950	110	500
MAY , 1977 21...	1.0	.90	2.5	2.6	5.0	4.7	230	60	220
AUG 09...	2.2	6.0	8.2	8.2	16	13	150	70	10
16...	.36	3.0	3.4	4.1	2.0	.07	160	30	40

06806495 - S BR WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 45)

DATE	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO-GEN (N) (MG/L) (00605)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L) (00625)	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOL-VED PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)
NOV , 1976 03...	.01	.07	.08	2.2	.23	.20	40	580	250
MAY , 1977 21...	.26	.47	.73	1.9	.27	.17	60	10	460
JUL 25...	.02	6.2	7.0	9.0	1.9	.19	80	140	210
AUG 09...	.70	12	13	14	3.5	.12	50	170	120

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

WEEPING WATER CREEK BASIN--Continued

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SUSPENDED SEDIMENT (MG/L) (80154)	SUSPENDED SEDIMENT DISCHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)
06806460 - WEEPING WATER CR AT WEEPING WATER, NEBR. (LAT 40 51 18 LONG 096 07 10)							
AUG , 1977							
09...	1045	57	22.0	944	145	--	--
16...	1230	169	23.0	1240	566	56	71
06806495 - S BR WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 43)							
JUL , 1977							
25...	1235	27	24.0	2030	148	--	--
AUG							
09...	1415	1140	23.0	3330	10300	69	74

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM (70346)
06806460 - WEEPING WATER CR AT WEEPING WATER, NEBR. (LAT 40 51 18 LONG 096 07 10)						
AUG , 1977						
09...	--	94	--	--	--	--
16...	82	94	98	100	--	--
06806495 - S BR WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 43)						
JUL , 1977						
25...	--	--	96	--	--	--
AUG						
09...	85	--	93	100	--	--

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	NUMBER OF SAMPLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
06806460 - WEEPING WATER CR AT WEEPING WATER, NEBR. (LAT 40 51 18 LONG 096 07 10)												
AUG , 1977												
09...	1045	57	1	28	36	43	52	60	70	77	81	--
16...	1230	169	1	34	41	51	74	90	98	100	--	--
06806495 - S BR WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 43)												
JUL , 1977												
25...	1235	27	2	43	44	49	63	80	98	100	--	--
AUG												
09...	1415	1140	2	24	31	43	89	100	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

WEEPING WATER CREEK BASIN--Continued

06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	FECAL COLIFORM .7UM-MF (COL./100 ML) (31625)
NOV , 1976 03...	0930	7.1	511	7.3	5.5	9	15	9.3	5.6	193
JUL , 1977 25...	1200	183	180	7.8	25.0	480	--	5.5	10	B125000
AUG 09...	1220	4290	110	7.0	22.0	400	700	5.4	6.4	80000

06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)

DATE	HARDNESS (CA,MG) (MG/L) (00900)	NONCARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CACO3 (MG/L) (00410)
NOV , 1976 03...	230	1	66	17	21	.6	5.4	285	0	234
JUL , 1977 25...	67	3	20	4.2	5.3	.3	8.7	78	0	64
AUG 09...	28	0	8.6	1.7	3.0	.2	5.9	47	0	39

06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)

DATE	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED FLUORIDE (F) (MG/L) (00950)	DISSOLVED SILICA (SIO2) (MG/L) (00955)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DISSOLVED SOLIDS (TONS PER AC-FT) (70303)	DISSOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)
NOV , 1976 03...	34	10	.3	16	316	310	.43	6.06	1.4
JUL , 1977 25...	13	3.9	.4	7.1	114	101	.16	56.3	2.2
AUG 09...	4.7	1.8	.2	5.3	77	55	.10	892	.85

06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)

DATE	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED PHOSPHORUS (P) (MG/L) (00666)	DISSOLVED BORON (B) (UG/L) (01020)	DISSOLVED IRON (FE) (UG/L) (01046)	DISSOLVED MANGANESE (MN) (UG/L) (01056)
NOV , 1976 03...	.06	1.2	1.3	2.7	.26	.17	60	40	170
JUL , 1977 25...	.94	12	13	15	2.2	.15	70	70	210
AUG 09...	.79	8.0	8.8	9.7	4.4	.15	50	250	60

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SUSPENDED SEDIMENT (MG/L) (80154)	SUSPENDED SEDIMENT DISCHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)

WEEPING WATER CREEK BASIN--Continued

06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SUSPENDED SEDIMENT (MG/L) (80154)	SUSPENDED SEDIMENT DISCHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)
JUL , 1977							
25...	1208	183	28.0	6290	3110	53	66
AUG							
09...	1220	4290	22.0	11900	138000	30	40

06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM (70346)
JUL , 1977						
25...	83	--	--	--	--	--
AUG						
09...	68	94	97	98	98	100

06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
JUL , 1977											
25...	1208	183	13	16	60	98	99	100	--	--	--
AUG											
09...	1220	4290	5	9	14	20	45	65	85	92	100

The following bed-material samples were collected for use in hydrologic analyses as part of a special channel geometry investigation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

WHITE RIVER BASIN

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
06444000 - WHITE RIVER AT CRAWFORD, NEBR. (LAT 42 41 33 LONG 103 25 03)										
JUN , 1977 14...	3	20	44	88	97	99	100	--	--	--
06445590 - BIG BORDEAUX CREEK NEAR CHADRON NEBR (LAT 42 43 30 LONG 102 55 44)										
JUN , 1977 29...	12	17	18	19	19	22	31	52	80	100

PONCA CREEK BASIN

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)
06453600 - PONCA CREEK AT VERDEL, NEBR. (LAT 42 48 40 LONG 098 10 35)								
MAY , 1977 11...	0	0	9	48	84	94	99	100

NIOBRARA RIVER BASIN

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
06454000 - NIOBRARA RIVER AT WYO-NEBR. STATE LINE (LAT 42 39 33 LONG 104 03 54)										
JUN , 1977 14...	17	47	56	58	58	61	65	72	100	--
06454100 - NIOBRARA RIVER AT AGATE, NEBR. (LAT 42 25 22 LONG 103 47 28)										
JUN , 1977 14...	9	37	50	51	51	52	52	53	53	100
06454500 - NIOBRARA RIVER ABOVE BOX BUTTE RESERVOIR NEBR (LAT 42 27 35 LONG 103 10 15)										
JUN , 1977 14...	0	2	21	90	95	99	100	--	--	--

BAZILE CREEK BASIN

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)
06466500 - BAZILE CREEK NEAR NIOBRARA, NEBR. (LAT 42 45 00 LONG 097 56 10)							
MAY , 1977 11...	0	1	18	76	97	99	100

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
OMAHA CREEK BASIN									
06601000 - OMAHA CR AT HOMER, NEBR (LAT 42 19 29 LONG 096 29 43)									
APR , 1977 12...	49	54	55	60	63	72	89	97	100

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
PLATTE RIVER BASIN										
06677500 - HORSE CREEK NEAR LYMAN, NEBR. (LAT 41 56 21 LONG 103 59 13)										
JUN , 1977 14...	7	56	79	83	88	90	94	98	100	--
06678000 - SHEEP CREEK NEAR MORRILL, NEBR. (LAT 41 57 50 LONG 103 56 20)										
JUN , 1977 14...	1	15	50	64	73	77	87	0	100	--
06679000 - DRY SPOTTEDTAIL CREEK AT MITCHELL, NEBR. (LAT 41 56 45 LONG 103 49 35)										
JUN , 1977 14...	--	0	18	78	95	99	100	--	--	--
06679500 - NORTH PLATTE RIVER AT MITCHELL, NEBR. (LAT 41 55 55 LONG 103 48 10)										
JUN , 1977 14...	--	0	3	26	92	96	98	100	--	--
06680000 - TUB SPRINGS NEAR SCOTTSBLUFF, NEBR. (LAT 41 54 55 LONG 103 42 55)										
JUN , 1977 14...	3	6	11	23	30	34	42	53	80	100

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
PLATTE RIVER BASIN--Continued										
06681000 - WINTERS CREEK NEAR SCOTTSBLUFF, NEBR. (LAT 41 51 08 LONG 103 37 35)										
JUN , 1977 14...	--	0	2	11	17	22	36	46	64	100
06682000 - NORTH PLATTE RIVER NEAR MINATARE, NEBR.(TOTFLO) (LAT 41 47 26 LONG 103 31 11.01)										
JUN , 1977 14...	--	0	8	77	96	100	--	--	--	--
06687500 - NORTH PLATTE RIVER AT LEWELLEN NEBR (LAT 41 19 01 LONG 102 07 30)										
JUN , 1977 30...	0	1	5	37	74	83	90	97	100	--
06691000 - NORTH PLATTE R NR SUTHERLAND NEBR (LAT 41 12 37 LONG 101 06 54)										
JUN , 1977 30...	--	0	7	55	88	93	98	100	--	--
06693000 - NORTH PLATTE RIVER AT NORTH PLATTE, NEBR. (LAT 41 09 13 LONG 100 45 16)										
JUN , 1977 30...	0	2	10	78	95	99	99	100	--	--
06762500 - LODGEPOLE CREEK AT BUSHNELL, NEBR. (LAT 41 13 03 LONG 103 48 03)										
JUN , 1977 13...	30	60	81	92	94	96	98	100	--	--
06765500 - SOUTH PLATTE RIVER AT NORTH PLATTE, NEBR. (LAT 41 07 10 LONG 100 45 18)										
JUN , 1977 30...	--	0	2	28	57	72	88	96	100	--
06765980 - PLATTE RIVER AT BRADY, NEBR. (CHAN 1) (LAT 41 01 10 LONG 100 22 16.02)										
JUL , 1977 01...	--	0	1	27	69	81	92	99	100	--
06765990 - PLATTE RIVER AT BRADY, NEBR. (CHAN 4) (LAT 40 59 22 LONG 100 22 39)										
JUL , 1977 01...	--	0	5	26	50	60	76	93	100	--
06766500 - PLATTE RIVER NEAR COZAD, NEBR. (LAT 40 50 08 LONG 099 59 13)										
JUL , 1977 01...	--	0	2	26	67	84	96	100	--	--

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
PLATTE RIVER BASIN--Continued										
06767500 - PLUM CREEK NEAR SMITHFIELD, NEBR. (LAT 40 39 40 LONG 099 42 00)										
JUL , 1977 01...	59	67	72	72	72	88	99	100	--	--
06768000 - PLATTE RIVER NEAR OVERTON, NEBR. (TUTFLO) (LAT 40 40 57 LONG 099 32 24.01)										
JUL , 1977 01...	--	0	6	31	57	69	81	96	100	--
06770000 - PLATTE RIVER NEAR ODESSA, NEBR. (LAT 40 39 55 LONG 099 15 20)										
APR , 1977 28...	--	0	9	54	74	84	91	98	100	--
06770500 - PLATTE RIVER NEAR GRAND ISLAND, NEBR. (LAT 40 52 28 LONG 098 16 54)										
APR , 1977 28...	--	0	8	36	63	80	93	98	100	--
06771500 - WOOD RIVER NEAR GIBBON, NEBR. (LAT 40 46 10 LONG 098 48 00)										
APR , 1977 28...	36	38	42	51	57	71	92	100	--	--
06775500 - MIDDLE LOUP RIVER AT DUNNING, NEBR. (LAT 41 49 50 LONG 100 06 00)										
APR , 1977 27...	0	2	30	76	95	98	99	100	--	--
06775900 - DISMAL RIVER NR THEDFORD NEBR (LAT 41 46 45 LONG 100 31 30)										
APR , 1977 26...	--	0	10	88	100	--	--	--	--	--
06776500 - DISMAL RIVER AT DUNNING, NEBR. (LAT 41 49 23 LONG 100 06 05)										
APR , 1977 27...	--	0	42	98	100	--	--	--	--	--
06779000 - MIDDLE LOUP R. AT ARCADIA, NEBR. (LAT 41 25 20 LONG 099 08 10)										
APR , 1977 28...	0	10	65	97	100	--	--	--	--	--
06782500 - SOUTH LOUP RIVER AT RAVENNA, NEBR. (LAT 41 00 42 LONG 098 58 40)										
APR , 1977 28...	0	3	69	99	100	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
PLATTE RIVER BASIN--Continued										
06783500 - MUD CREEK NEAR SWEETWATER, NEBR. (LAT 41 02 15 LONG 098 59 35)										
APR , 1977 28...	38	44	73	93	98	100	--	--	--	--
06784000 - SOUTH LOUP R AT ST. MICHAEL, NEBR. (LAT 41 01 53 LONG 098 44 25,01)										
APR , 1977 28...	0	12	83	100	--	--	--	--	--	--
06785000 - MIDDLE LOUP R. AT ST. PAUL, NEBR. (LAT 41 11 55 LONG 098 26 50)										
APR , 1977 27...	--	0	26	96	100	--	--	--	--	--
06786000 - NORTH LOUP RIVER AT TAYLOR, NEBR. (LAT 41 46 37 LONG 099 22 45)										
APR , 1977 27...	--	0	30	89	98	99	99	100	--	--
06787500 - CALAMUS RIVER NEAR BURWELL, NEBR. (LAT 41 48 35 LONG 099 10 56)										
APR , 1977 27...	--	0	21	92	98	99	100	--	--	--
06788500 - NORTH LOUP RIVER AT ORD, NEBR. (LAT 41 36 27 LONG 098 55 17)										
APR , 1977 27...	--	0	8	73	93	--	--	--	--	--
06790500 - NORTH LOUP RIVER NR ST PAUL NEBR (LAT 41 15 35 LONG 098 26 50)										
APR , 1977 27...	--	0	35	96	98	99	100	--	--	--
06791500 - CEDAR RIVER NEAR SPALDING, NEBR. (LAT 41 42 41 LONG 098 26 48)										
APR , 1977 27...	--	0	38	96	100	--	--	--	--	--
06794000 - BEAVER CREEK AT GENOA, NEBR. (LAT 41 26 32 LONG 097 48 11)										
APR , 1977 27...	--	0	33	90	94	96	99	100	--	--
06795500 - SHELL CREEK NEAR COLUMBUS, NEBR. (LAT 41 31 33 LONG 097 16 55)										
MAY , 1977 10...	25	27	35	83	85	94	100	--	--	--

PLATTE RIVER BASIN--Continued

06797500 - ELKHORN RIVER AT EWING, NEBR. (LAT 42 16 03 LONG 098 20 11)

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
MAY , 1977										
11...	--	6	24	88	99	100	--	--	--	--

06799000 - ELKHORN RIVER NEAR NORFOLK, NEBR. (LAT 42 00 20 LONG 097 28 40)

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
MAY , 1977										
10...	2	13	60	86	95	98	100	--	--	--

06799100 - NORTH FORK ELKHORN RIVER NEAR PIERCE, NEBR. (LAT 42 10 44 LONG 097 29 04)

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
MAY , 1977										
11...	11	17	50	89	94	97	99	100	--	--

06803000 - SALT CREEK AT ROCA, NEBR. (LAT 40 39 29 LONG 096 39 55)

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
MAY , 1977										
09...	77	79	80	81	81	94	100	--	--	--

06804000 - WAHOO CREEK AT ITHACA, NEBR. (LAT 41 08 40 LONG 096 32 10)

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
MAY , 1977										
10...	0	0	19	70	98	99	100	--	--	--

WEEPING WATER CREEK BASIN

06806500 - WEEPING WATER CREEK AT UNION, NEBR. (LAT 40 47 35 LONG 095 56 40)

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
MAY , 1977									
10...	29	31	40	50	58	68	86	98	100

LITTLE NEMAHA RIVER BASIN

06811500 - LITTLE NEMAHA RIVER AT AUBURN, NEBR. (LAT 40 23 33 LONG 095 48 46)

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)
MAY , 1977							
13...	4	4	13	74	90	97	100

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
KANSAS RIVER BASIN										
06821500 - ARIKAREE RIVER AT HAIGLER, NEBR. (LAT 40 01 45 LONG 101 58 10)										
JUL , 1977 14...	--	0	3	76	98	100	--	--	--	--
06823000 - NORTH FORK REPUBLICAN RIVER AT COLORADO-NEBRASKA (LAT 40 04 10 LONG 102 03 05)										
JUL , 1977 14...	0	3	15	54	92	98	100	--	--	--
06823500 - BUFFALO CREEK NEAR HAIGLER, NEBR. (LAT 40 02 45 LONG 101 52 15)										
JUL , 1977 14...	4	13	32	89	99	100	--	--	--	--
06824000 - ROCK CREEK AT PARKS, NEBR. (LAT 40 02 30 LONG 101 43 40)										
JUL , 1977 13...	2	15	43	65	72	78	85	94	100	--
06824500 - REPUBLICAN RIVER AT BENKELMAN, NEBR. (LAT 40 01 55 LONG 101 32 30)										
JUL , 1977 13...	0	2	31	94	99	100	--	--	--	--
06827500 - SOUTH FORK REPUBLICAN RIVER NEAR BENKELMAN, NEBR (LAT 40 00 34 LONG 101 32 32)										
JUL , 1977 13...	--	0	2	29	60	70	76	81	89	100
06828500 - REPUBLICAN RIVER AT STRATTON, NEBR. (LAT 40 08 28 LONG 101 13 42)										
JUL , 1977 13...	--	0	26	95	99	100	--	--	--	--
06831500 - FRENCHMAN CREEK NEAR IMPERIAL, NEBR. (LAT 40 25 45 LONG 101 37 25)										
JUL , 1977 13...	11	26	32	34	42	47	64	83	100	--
06835000 - STINKING WATER CREEK NEAR PALISADE, NEBR. (LAT 40 22 10 LONG 101 06 50)										
JUL , 1977 13...	19	31	35	52	70	79	89	97	100	--
06835500 - FRENCHMAN CREEK AT CULBERTSON, NEBR. (LAT 40 14 05 LONG 100 52 40)										
JUL , 1977 12...	--	0	4	48	77	87	96	100	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
KANSAS RIVER BASIN--Continued										
06836000 - BLACKWOOD CREEK NEAR CULBERTSON, NEBR. (LAT 40 14 10 LONG 100 40 39)										
JUL , 1977 12...	40	54	57	83	92	96	100	--	--	--
06837000 - REPUBLICAN RIVER AT MCCOOK NEBR (LAT 40 11 15 LONG 100 37 05)										
JUL , 1977 12...	--	0	8	64	91	95	99	100	--	--
06838000 - RED WILLOW CREEK NEAR RED WILLOW, NEBR. (LAT 40 14 10 LONG 100 30 00)										
JUL , 1977 12...	51	57	58	67	82	89	100	--	--	--
06841000 - MEDICINE CREEK ABOVE HARRY STRUNK LAKE, NEBR. (LAT 40 30 10 LONG 100 19 20)										
JUL , 1977 12...	17	24	27	34	56	70	88	97	100	--
06843500 - REPUBLICAN RIVER AT CAMBRIDGE, NEBR. (LAT 40 17 05 LONG 100 08 35)										
JUL , 1977 12...	--	0	10	70	91	95	98	100	--	--
06844500 - REPUBLICAN RIVER NEAR ORLEANS, NEBR. (LAT 40 07 53 LONG 099 30 08)										
JUL , 1977 11...	0	1	13	40	74	84	94	98	100	--
06847000 - BEAVER CREEK NEAR BEAVER CITY, NEBR. (LAT 40 07 12 LONG 099 53 35)										
JUL , 1977 11...	34	39	43	49	54	64	75	88	100	--
06847500 - SAPPA CREEK NEAR STAMFORD, NEBR. (LAT 40 07 53 LONG 099 33 15)										
JUL , 1977 11...	8	10	12	45	73	90	100	--	--	--
06851000 - CENTER CREEK AT FRANKLIN, NEBR. (LAT 40 06 12 LONG 098 58 45)										
JUL , 1977 11...	--	0	10	67	96	98	100	--	--	--
06879900 - BIG BLUE RIVER AT SURPRISE, NEBR. (LAT 41 06 05 LONG 097 18 35)										
MAY , 1977 10...	40	44	52	69	80	92	99	100	--	--
06880000 - LINCOLN CREEK NEAR SEWARD, NEBR. (LAT 40 58 57 LONG 097 08 45)										
APR , 1977 29...	74	78	79	81	82	88	97	100	--	--
06880500 - BIG BLUE RIVER AT SEWARD, NEBR. (LAT 40 54 05 LONG 097 05 55)										
APR , 1977 29...	42	45	52	76	83	86	90	96	100	--
06881000 - BIG BLUE RIVER NEAR CRETE, NEBR. (LAT 40 35 47 LONG 096 57 36)										
APR , 1977 29...	--	--	0	87	88	96	100	--	--	--

ADAMS COUNTY

403403098244801. Local number 7N-10W-23AB.

LOCATION.--Lat 40°34'03", long 98°24'48", NE1/4NE1/4 sec.23, T.7 N., R.10 W., Hydrologic Unit 10270206, 0.5 mi (0.8 km) west of the west junction of Routes 281 and 6, in the south part of Hastings. Owner: Henry Fricke, Rt. 2, Hastings, Nebr.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 8 in (0.20 m), depth 155 ft (47.2 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,927 ft (587 m). Measuring point: Top of casing 1.0 ft (0.30 m) above land-surface datum.

REMARKS.--Large amounts of ground water are pumped from municipal and industrial wells located east and northeast of the well and from irrigation wells in other directions.

PERIOD OF RECORD.--August 1934 to October 1938; August 1948 to December 1950; and January 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 99.95 ft (30.46 m) below land-surface datum, Jan. 22, 1935; lowest, 122.75 ft (37.41 m) below land-surface datum, Aug. 3, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	118.67	118.24	117.91	117.67	117.36	117.21	116.94	116.75	116.75	120.28	120.60	118.86
10	118.69	118.27	118.04	117.63	117.30	117.09	116.90	116.69	116.85	120.77	119.95	118.75
15	118.75	118.18	120.31	117.59	117.34	117.21	116.85	116.83	116.87	119.85	119.60	118.61
20	118.52	118.16	117.80	117.50	117.20	117.00	116.83	116.65	119.30	121.30	119.35	118.51
25	118.44	118.00	117.78	117.42	117.28	116.96	116.75	116.70	.....	121.90	119.10	118.95
EOM	118.43	117.98	117.71	117.40	117.23	117.13	116.75	116.65	119.60	122.67	119.01	118.42

WTR YEAR 1977 MAX 116.65 MAY 21, 1977 MIN 122.75 AUG 3, 1977

BLAINE COUNTY

414950100041501. Local number 22N-24W-33CD.

LOCATION.--Lat 41°49'50", long 100°04'15", NE1/4SW1/4 sec.33, T.22 N., R.24 W., Hydrologic Unit 10210001, approximately 500 ft (152 m) west of junction of State Highways 91 and 2 north of Dunning. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 13 ft (3.9 m), screened 11 to 13 ft (3.4 to 4.0 m).

DATUM.--Altitude of land-surface datum is 2,610 ft (796 m). Measuring point: Top of casing 1.40 ft (0.43 m) above land-surface datum.

PERIOD OF RECORD.--December 1938 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.06 ft (0.32 m) below land-surface datum, Mar. 8, 1950; lowest, 6.97 ft (2.12 m) below land-surface datum, Aug. 9, 1941.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 13	4.82	DEC 13	4.01	FEB 16	3.92	MAY 9	2.58	JUL 11	2.66	AUG 22	4.09
NOV 2	4.62	JAN 3	4.01	MAR 7	3.77	JUN 1	2.09	AUG 2	3.88	SEP 12	3.16
NOV 23	4.38	JAN 26	4.11	APR 20	3.20	JUN 21	1.92				

BOONE COUNTY

413323098074501. Local number 18N-7W-4CB.

LOCATION.--Lat 41°33'23", long 98°07'45", NE1/4SW1/4 sec.4, T.18 N., R.7 W., Hydrologic Unit 10210010, at junction of State Highways 52 and 56 approximately 1 mi (1.6 km) east of Cedar Rapids. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 22 ft (6.7 m), screened 20 to 22 ft (6.1 to 6.7 m).

DATUM.--Altitude of land-surface datum is 1,762 ft (537 m). Measuring point: Top of casing 2.90 ft (0.88 m) above land-surface datum.

PERIOD OF RECORD.--November 1936 to October 1942; April 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.57 ft (2.61 m) below land-surface datum, May 6, 1973; lowest, 15.17 ft (4.62 m) below land-surface datum, Oct. 26, 1940.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	12.53	MAY 19	11.39								

BOX BUTTE COUNTY

420945102551501. Local number 25N-48W-4DDD.

LOCATION.--Lat 42°09'45", long 102°55'15", SE1/4SE1/4SE1/4 sec.4, T.25 N., R.48 W., Hydrologic Unit 10150003, approximately 3.6 miles (5.8 km) south and 2.8 mi (4.5 km) east of Berea. Owner: U.S. Geological Survey.

AQUIFER.--Marsland Formation of Miocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 204 ft (62.2 m), screened 190 to 193 ft (57.9 to 58.8 m).

DATUM.--Altitude of land-surface datum is 4,032.95 ft (1,229.24 m). Measuring point: Top of pipe 2.00 ft (0.61 m) above land-surface datum.

REMARKS.--Water levels in vicinity of well are affected by large withdrawals of ground water for irrigation use.

PERIOD OF RECORD.--April 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.16 ft (19.25 m) below land-surface datum, Jan. 25, 1950; lowest, 94.62 ft (28.84 m) below land-surface datum, Oct. 14, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	94.62										

BROWN COUNTY

423307099494501. Local number 30N-21W-19CC.

LOCATION.--Lat 42°33'07", long 99°49'45", SW1/4SW1/4 sec.19, T.30 N., R.21 W., Hydrologic Unit 10150004, 1.2 mi (1.9 km) east of junction of U.S. Highway 20 and Route 7 in Ainsworth. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 52 ft (15.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,511.44 ft (765.49 m). Measuring point: Top of casing 0.20 ft (0.06 m) above land-surface datum.

REMARKS.--Water levels in well are affected by pumpage of ground water for irrigation and seepage losses from nearby irrigation project.

PERIOD OF RECORD.--November 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.35 ft (10.47 m) below land-surface datum, Jan. 25, 1974; lowest, 40.96 ft (12.48 m) below land-surface datum, Sept. 7, 1968.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	37.77	37.57	37.46	37.42	-----	37.43	37.25	37.16	36.94	36.70	36.27	35.57
10	37.73	37.57	37.47	37.41	37.40	37.42	37.26	37.10	36.92	36.63	36.21	35.60
15	37.70	37.52	37.43	37.41	37.42	37.35	37.22	37.00	36.88	36.65	36.09	35.36
20	37.64	37.52	37.44	37.42	37.41	37.30	37.16	37.05	36.84	36.58	35.93	35.25
25	37.63	37.48	37.42	37.39	37.42	37.33	37.17	37.03	36.80	36.49	35.83	35.16
EOM	37.60	37.50	37.43	-----	37.43	37.32	37.15	36.99	36.70	36.38	35.69	35.05

WTR YEAR 1977 MAX 35.05 SEP 30, 1977 MIN 37.82 OCT 1, 1976

BUFFALO COUNTY

404618098504801. Local number 9N-14W-1DC.

LOCATION.--Lat 40°46'18", long 98°50'48", SW1/4SE1/4 sec.1, T.9 N., R.14 W., Hydrologic Unit 10200102, 1.3 mi (2.1 km) north of the intersection of Route 30 and the North-South range-line road on the east side of Gibbon, then 0.5 mi (0.8 km) west on section-line road. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 38 ft (11.6 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,060.43 ft (628.02 m). Measuring point: Top of casing 0.80 ft (0.24 m) above land-surface datum.

REMARKS.--Water levels in well are affected by pumpage from nearby irrigation wells.

PERIOD OF RECORD.--July 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.36 ft (4.68 m) below land-surface datum, June 11, 1952; lowest, 29.11 ft (8.87 m) below land-surface datum, Sept. 9, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	27.96	27.38	27.10	26.86	26.68	26.60	26.45	26.26	25.91	26.09	28.76	28.02
10	27.83	27.31	27.07	26.81	26.65	26.54	26.42	26.23	25.88	26.90	28.86	27.81
15	27.70	27.26	26.99	26.79	26.64	26.55	26.39	26.18	25.78	27.22	28.69	27.50
20	27.61	27.21	26.96	26.78	26.62	26.52	26.36	26.12	25.70	27.85	28.98	27.41
25	27.53	27.16	26.91	26.72	26.63	26.48	26.34	26.08	25.65	28.16	28.61	27.25
EOM	27.44	27.13	26.87	26.71	26.61	26.52	26.30	25.98	25.62	28.44	28.24	27.10

WTR YEAR 1977 MAX 25.59 JUN 30, 1977 MIN 28.98 AUG 20, 1977

BUFFALO COUNTY

404345098560001. Local number 9N-14W-19DD.

LOCATION.--Lat 40°43'45", long 98°56'00", SE1/4SE1/4 sec.19, T.9 N., R.14 W., Hydrologic Unit 10200102, 4.7 mi (7.6 km) west-southwest of Gibbon on U.S. Highway 30. Owner: Robert D. Lewis.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 24 in (0.61 m), depth 54 ft (16.5 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,102.16 ft (640.74 m). Measuring point: Hole in pump base 0.70 ft (0.21 m) above land-surface datum.

REMARKS.--Water levels in well are affected by pumping of well and of nearby wells for irrigation supplies.

PERIOD OF RECORD.--October 1930 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.55 ft (6.87 m) below land-surface datum, June 9, 1931; lowest, 35.20 ft (10.73 m) below land-surface datum, Aug. 30, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 3	30.48	JUN 8	32.17								

BUTLER COUNTY

411420097173001. Local number 15N-1E-27DD.

LOCATION.--Lat 41°14'20", long 97°17'30", SE1/4SE1/4 sec.27, T.15 N., R.1 E., Hydrologic Unit 10200201, 2 mi (3.2 km) north of the northeast corner of Rising City. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5 in (0.13 m), depth 210 ft (64.0 m), perforated 199 to 210 ft (60.7 to 64.0 m).

DATUM.--Altitude of land-surface datum is 1,610 ft (491 m). Measuring point: Top of platform, at land-surface datum.

REMARKS.--Well may be partially plugged, and water levels recorded may not be representative of water levels in principal aquifer in area. Well has been replaced by 411420097173002, local number 15N-1E-27DD2.

PERIOD OF RECORD.--June 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 88.67 ft (27.03 m) below land-surface datum, June 15, 1975; lowest, 108.63 ft (33.11 m) below land-surface datum, July 23, 1961.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	91.20H	OCT 15	91.00	NOV 5	90.44	NOV 25	92.74	DEC 5	92.54	JAN 31	91.94
OCT 30	91.00	NOV 6	89.67H	NOV 10	90.77	DEC 3	92.55H	JAN 6	92.08H	FEB 1	91.98H

H TAPE MEASUREMENT

BUTLER COUNTY

411420097173002. Local number 15N-1E-27DD2.

LOCATION.--Lat 41°14'20", long 97°17'30", SE1/4SE1/4 sec.27, T.15 N., R.1 E., Hydrologic Unit 10270201, 2 mi (3.2 km) north of the northeast corner of Rising City. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5 in (0.13 m), depth 210.0 ft (64.01 m), perforated 199 to 210 ft (60.7 to 64.0 m).

DATUM.--Altitude of land-surface datum is 1,618 ft (493 m). Measuring point: Top of platform, at land-surface datum.

REMARKS.--Replacement for 411420097173001, local number 15N-1E-27DD, period of record June 1958 to January 1977. Water levels in well affected by pumping from nearby wells during irrigation season. Water quality records for the 1977 water year are published elsewhere in this report.

PERIOD OF RECORD.--February 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 107.78 ft (32.85 m) below land-surface datum, June 5, 1977; lowest, 174.50 ft (53.19 m) below land-surface datum, Aug. 3, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	.....	.....	.....	.....	.....	108.92	108.36	107.90	107.78	.....	.....	128.65
10	.....	.....	.....	.....	.....	.....	.....	108.03	108.17	.....	.....	125.35
15	.....	.....	.....	.....	.....	.....	.....	110.35	108.37	.....	.....	122.14
20	.....	.....	.....	.....	.....	.....	.....	108.45	108.10	.....	.....	120.41
25	.....	.....	.....	.....	.....	.....	.....	108.02	108.45	.....	.....	117.91
EOM	.....	.....	.....	.....	.....	108.33	.....	107.85	.....	.....	.....	117.90

WTR YEAR 1977 MAX 107.78 JUN 5, 1977 MIN 174.50 AUG 3, 1977

CHASE COUNTY

403220101384001. Local number 7N-38W-28CC.

LOCATION.--Lat 40°32'20", long 101°38'40", SW1/4SW1/4 sec.28, T.7 N., R.38 W., Hydrologic Unit 10250005, about 0.5 mi (0.8 km) north of Imperial. Owner: Roy Hust.

AQUIFER.--Ogallala Formation of Pliocene age.

WELL CHARACTERISTICS.--Drilled unused observation water-table well, diameter 18 in (0.46 m), depth 143 ft (43.6 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 3,284.6 ft (1,001.1 m). Measuring point: Top of casing 0.30 ft (0.09 m) above land-surface datum.

REMARKS.--Recording gage was installed on this well from December 1948 to December 1963. Water levels in well are affected by irrigation pumpage in area.

PERIOD OF RECORD.--December 1944; December 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 72.82 ft (22.20 m) below land-surface datum, June 29, 1964; lowest measured, 98.60 ft (30.05 m) below land-surface datum, Oct. 5, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	98.60										

CHASE COUNTY

403235101395501. Local number 7N-38W-29CBB.

LOCATION.--Lat 40°32'35", long 101°39'55", NW1/4NW1/4SW1/4 sec.29, T.7 N., R.38 W., Hydrologic Unit 10250005, 0.5 mi (0.8 km) north and 1 mi (1.6 km) west of Imperial on U.S. Highway 6, then 0.5 mi (0.8 km) north on gravel road. Owner: U.S. Geological Survey.

AQUIFER.--Ogallala Formation of Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5.50 in (0.14 m), depth 230 ft (70.1 m), perforated 190 to 230 ft (57.9 to 70.1 m).

DATUM.--Altitude of land-surface datum is 3,290.30 ft (1,002.88 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.

REMARKS.--Water levels in well are affected by irrigation pumpage in area. Water-quality records for the 1977 water year are published elsewhere in this report.

PERIOD OF RECORD.--June 1964 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 55.87 ft (17.03 m) below land-surface datum, July 8, 1964; lowest, 87.58 ft (26.69 m) below land-surface datum, Aug. 18, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	80.45H	78.07	.....	.....	74.95	74.46	73.75H	73.22	73.13	81.85	84.92	83.38
10	79.91	77.95	76.87	.....	74.76	74.00	73.46	73.11	73.13	82.64	86.74	84.18
15	79.64	77.65	76.44	75.62	74.73	74.35	73.45	73.11	73.02	83.78	86.79	83.45
20	79.15	77.51	76.46	.....	74.72	74.06	73.42	74.04	73.12	84.40	85.71	82.70
25	78.82	77.05	76.15	75.16	74.59	73.71	73.29	73.13	77.77	85.06	84.91	82.47
EOM	78.56	.....	.....	75.02	74.42	74.11	73.30	73.27	80.35	86.23	83.86	82.12

WTR YEAR 1977 MAX 72.90 JUN 2, 1977 MIN 87.58 AUG 18, 1977

H TAPE MEASUREMENT

CHERRY COUNTY

423205100321501. Local number 30N-28W-36AAA.

LOCATION.--Lat 42°32'05", long 100°32'15", NE1/4NE1/4NE1/4 sec.36, T.30 N., R.28 W., Hydrologic Unit 10150004, 8 mi (12.9 km) south of the intersection of U.S. Highway 83 and State Highway 483, south of Valentine. Owner: U.S. Geological Survey.

AQUIFER.--Sandhills deposits of Pleistocene age.

WELL CHARACTERISTICS.--Bored observation water-table well, diameter 1.25 in (0.03 m), depth 12 ft (3.7 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,897.26 ft (883.08 m). Measuring point: Top of casing 3.00 ft (0.91 m) above land-surface datum.

REMARKS.--Water levels affected by evapotranspiration.

PERIOD OF RECORD.--October 1961 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, +0.20 ft (+0.06 m) above land-surface datum, Jan. 11, 1936; lowest, 1.99 ft (0.61 m) below land-surface datum, Oct. 4, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 4	1.99	JAN 5	0.70G	SEP 28	0.70G						

G MEASUREMENT MADE BY ANOTHER AGENCY

CHEYENNE COUNTY

410917102410001. Local number 14N-47W-26CB.

LOCATION.--Lat 41°09'17", long 102°41'00", NW1/4SW1/4 sec.26, T.14 N., R.47 W., Hydrologic Unit 10190016, 2 mi (3.2 km) west of Lodgepole. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 29 ft (8.8 m), screened 27 to 29 ft (8.2 to 8.8 m).

DATUM.--Altitude of land-surface datum is 3,872.8 ft (1,180.4 m). Measuring point: Top of casing 1.20 ft (0.37 m) above land-surface datum.

REMARKS.--Water levels affected by pumping from nearby wells during irrigation season and by changes in stage of Lodgepole Creek.

PERIOD OF RECORD.--May 1940 to November 1942; November 1944; June 1947; June 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.32 ft (5.58 m) below land-surface datum, Mar. 28, 1951; lowest, 24.88 ft (7.58 m) below land-surface datum, Oct. 22, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22	24.88										

CLAY COUNTY

402940098154001. Local number 6N-8W-17BB.

LOCATION.--Lat 40°29'40", long 98°15'40", NW1/4NW1/4 sec.17, T.6 N., R.8 W., Hydrologic Unit 10270206, 0.7 mi (1.1 km) south of Glenville. Owner: Willard W. Kissinger.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), depth 151 ft (46.0 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,846 ft (563 m). Measuring point: Hole in turbine base at land-surface datum.

REMARKS.--Water levels affected by pumping during irrigation season.

PERIOD OF RECORD.--October 1952; June 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 95.53 ft (29.12 m) below land-surface datum, June 24, 1954; lowest, 108.00 ft (32.92 m) below land-surface datum, Oct. 13, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 13	108.00										

COLFAX COUNTY

412810097054501. Local number 17N-3E-4CC.

LOCATION.--Lat 41°28'10", long 97°05'45", SW1/4SW1/4 sec.4, T.17 N., R.3 E., Hydrologic Unit 10200201, 2 mi west (3.2 km) and 1 mi (1.6 km) north of intersection of U.S. Highway 30 and State Highway 15 in Schuyler. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1.25 in (0.03 m), depth 16 ft (4.9 m), screened 14 to 16 ft (4.3 to 4.9 m).

DATUM.--Altitude of land-surface datum is 1,370.58 ft (417.75 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--September 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.15 ft (1.26 m) below land-surface datum, Apr. 1, 1952; lowest, 10.37 ft (3.16 m) below land-surface datum, Oct. 28, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	10.37										

CUSTER COUNTY

413910099285001. Local number 19N-19W-2BB.

LOCATION.--Lat 41°39'10", long 99°28'50", NW1/4NW1/4 sec.2, T.19 N., R.19 W., Hydrologic Unit 10210003, 1 mi (1.6 km) north and 5.8 mi (9.3 km) west of Sargent. Owner: Ralph Slagel.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), depth 69 ft (21.0 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,361.95 ft (719.92 m). Measuring point: Hole in turbine base at land-surface datum.

PERIOD OF RECORD.--August 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.80 ft (2.68 m) below land-surface datum, Oct. 8, 1964; lowest, 19.41 ft (5.92 m) below land-surface datum, Sept. 1, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	9.50G	MAR 13	11.54G	JUN 16	9.54G	AUG 1	9.19G				

G MEASUREMENT MADE BY ANOTHER AGENCY

DAWES COUNTY

424100103243501. Local number 31N-52W-3DC.

LOCATION.--Lat 42°41'00", long 103°24'35", SW1/4SE1/4 sec.3, T.31 N., R.52 W., Hydrologic Unit 10140201, behind house at 312 Annin Street in Crawford. Owner: T. P. Moody.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 39 ft (11.9 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 3,685 ft (1,123 m). Measuring point: Edge of iron plate 1.07 ft (0.33 m) above land-surface datum.

PERIOD OF RECORD.--August 1934 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.87 ft (4.84 m) below land-surface datum, May 30, 1948; lowest, 22.28 ft (6.79 m) below land-surface datum, Oct. 31, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	18.79	DEC 20	19.79	FEB 22	19.84	APR 20	19.90	JUN 20	18.98	AUG 22	19.65
NOV 22	19.86	JAN 20	19.86	MAR 21	19.88	MAY 23	19.92	JUL 20	19.05	SEP 20	19.03

DAWSON COUNTY

405250099445501. Local number 10N-21W-18DDD.

LOCATION.--Lat 40°52'50", long 99°44'55", SE1/4SE1/4SE1/4 sec.18, T.10 N., R.21 W., Hydrologic Unit 10200101, 3.5 mi (5.6 km) north of the intersection of Route 21 and U.S. Highway 30 in Lexington. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 120 ft (36.6 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,420.58 ft (737.79 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumpage from nearby irrigation wells and by seepage from irrigation canals.

PERIOD OF RECORD.--July 1964 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.74 ft (2.97 m) below land-surface datum, Oct. 28, 1965; lowest, 17.90 ft (5.46 m) below land-surface datum, Aug. 20, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	17.06	16.94	17.00	17.12	17.20	.....	.....	.....	.....	.....	.....	.....
10	16.99	16.97	17.04	17.12	.....	.....	.....	.....	.....	.....	.....	.....
15	16.99	16.95	17.03	17.16	.....	.....	.....	.....	.....	.....	.....	.....
20	16.95	16.97	17.07	17.16	.....	.....	.....	15.42M	13.56M	13.92M	.....	.....
25	16.94	16.95	17.07	17.16	.....	.....	.....	.....	.....	.....	.....	.....
EOM	16.95	16.98	17.11	17.19	.....	.....	.....	.....	.....	.....	.....	.....

WTR YEAR 1977 MAX 13.39 JUN 29, 1977 MIN 17.30 MAR 6, 1977

M TAPE MEASUREMENT

DAWSON COUNTY

404850099503501. Local number 10N-22W-29AA.

LOCATION.--Lat 40°48'50", long 99°50'35", NE1/4NE1/4 sec.29, T.10 N., R.22 W., Hydrologic Unit 10200101, 2 mi (3.2 km) east of Darr. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 12 ft (3.7 m), screened 10 to 12 ft (3.0 to 3.7 m).

DATUM.--Altitude of land-surface datum is 2,435.14 ft (742.23 m). Measuring point: Top of casing 1.80 ft (0.55 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping from nearby wells during irrigation season.

PERIOD OF RECORD.--October 1931 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.1 ft (1.55 m) below land-surface datum, Oct. 13, 1965; lowest, 17.69 ft (5.39 m) below land-surface datum, Feb. 8, 1946.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 23	8.71										

DUNDY COUNTY

400155101521302. Local number 1N-40W-29BB2.

LOCATION.--Lat 40°01'55", long 101°52'13", NW1/4NW1/4 sec.29, T.1 N., R.40 W., Hydrologic Unit 10250002, 3.5 mi (5.6 km) east of Haigler on U.S. Highway 34 and 0.5 mi (0.8 km) north. Well is within 0.5 mi (0.8 km) of Republican River. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 48.8 ft (14.87 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 3,205 ft (977 m). Measuring point: South side of casing 1.6 ft (0.49 m) above land-surface datum.

REMARKS.--Replacement for well 400155101521301, local number 1N-40W-29BB1 with period of record from May 1966 to June 1975. Water levels in well are affected by pumping from nearby irrigation wells, evapotranspiration, and changes in stage of Republican River. Water-quality records for the 1977 water year are published elsewhere in this report.

PERIOD OF RECORD.--October 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.45 ft (5.01 m) below land-surface datum, June 25, 1975; lowest, 20.97 ft (6.39 m) below land-surface datum, Sept. 12, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	20.02	18.98	18.58	18.16	17.81	17.60	.....	.....	.....	.....	19.89	20.16
10	19.63	18.90	18.48	18.08	17.76	17.58	.....	17.08H	.....	.....	20.13	20.88
15	19.49	18.80	18.39	18.04	17.73	17.53	.....	.....	.....	19.28	20.13	20.23
20	19.35	18.92	18.38	17.98	17.69	17.48	.....	.....	.....	19.58	19.77	20.01
25	19.23	18.70	18.27	17.92	17.65	17.43	.....	.....	.....	19.67	20.17	20.31
EOM	19.10	18.62	18.20	17.85	17.62	17.41	.....	.....	.....	19.71	20.05	19.97

WTR YEAR 1977 MAX 17.08 MAY 10, 1977 MIN 20.89 SEP 12, 1977

H TAPE MEASUREMENT

FILLMORE COUNTY

402450097434C01. Local number 5N-4W-12BC.

LOCATION.--Lat 40°24'50", long 97°43'40", SW1/4NW1/4 sec.12, T.5 N., R.4 W., Hydrologic Unit 10270206, 3 blocks west and 1.5 blocks north of fire station on principal north-south street in Shickley. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 91.27 ft (27.82 m), perforated 80 to 100 ft (24.4 to 30.5 m).

DATUM.--Altitude of land-surface datum is 1,636 ft (499 m). Measuring point: Top of casing at land-surface datum.

REMARKS.--Water levels in well affected by pumping from nearby municipal and irrigation wells. Well originally 100 ft (30.5 m) deep, but has filled in and was 91.15 ft (27.78 m) deep in December, 1976; in July, 1977, the well was 91.27 ft (27.82 m) deep. Well has been replaced by 402504097432201, local number 5N-4W-12BDC.

PERIOD OF RECORD.--October 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 73.13 ft (22.29 m) below land-surface datum, June 15, 1957; lowest, dry, 91.27 ft (27.82 m) below land-surface datum, July 20, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	.....	.....	.....	.....	.....	91.03	90.77	90.59	90.33	90.50	.....	.....
10	.....	.....	.....	.....	91.17	90.87	90.74	90.50	90.24	90.78	.....	.....
15	.....	.....	91.15P	91.16	91.17	90.98	90.71	90.41	90.31	91.13	.....	.....
20	.....	.....	91.15P	91.16	91.14	90.86	90.68	90.40	90.29	91.27P	.....	.....
25	.....	.....	91.15P	91.16	91.12	90.75	90.64	90.44	90.26	.....	.....	.....
EOM	.....	.....	91.15P	91.17	91.07	90.88	90.61	90.42	90.28	.....	.....	.....

WTR YEAR 1977 MAX 90.20 MAY 28, 1977 MIN 91.27(DRY) JUL 20, 1977

P DRY

FILLMORE COUNTY

402504097432201. Local number 5N-4W-12BDC.

LOCATION.--Lat 40°25'04", long 97°43'22", SW1/4SE1/4NW1/4 sec.12, T.5 N., R.4 W., Hydrologic Unit 10270206, one-half block south of fire station on principal north-south street in Shickley. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5 in (0.13 m), depth 260.0 ft (79.25 m), perforated 100 to 260 ft (30.5 to 79.25 m).

DATUM.--Altitude of land-surface datum is 1651 ft (503 m). Measuring point: Top of casing 1.5 ft (0.46 m) above land-surface datum.

REMARKS.--Replacement for 402450097434C01, local number 5N-4W-12BC, period of record October 1956 to September 1977. Water levels in well affected by pumping from nearby municipal and irrigation wells. Water-quality records for the 1977 water year are published elsewhere in this report.

PERIOD OF RECORD.--June 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 91.43 ft (27.87 m) below land-surface datum, June 9, 1977; lowest, 94.03 ft (28.66 m) below land-surface datum, Aug. 5, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUN 9	91.43	AUG 5	94.03	SEP 9	93.86						

FILLMORE COUNTY

403800097300701. Local number 8N-2W-26AD.

LOCATION.--Lat 40°38'00", long 97°30'07", SE1/4NE1/4 sec.26, T.8 N., R.2 W., Hydrologic Unit 10270203, 2.5 mi (4.0 km) west on Route 6 from the principal street of Exeter, then 0.4 mi (0.6 km) south. Owner: U.S. Geological Survey.

AQUIFER.--Loess of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 40 ft (12.2 m), perforated 25 to 40 ft (7.6 to 12.2 m).

DATUM.--Altitude of land-surface datum is 1,610 ft (491 m). Measuring point: Top of casing at land-surface datum.

REMARKS.--Perched aquifer, water levels affected by infiltration and deep percolation of applied irrigation water pumped from deeper aquifer.

PERIOD OF RECORD.--October 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.46 ft (1.66 m) below land-surface datum, Feb. 20, 1974; lowest, 24.16 ft (7.36 m) below land-surface datum, July 10, 1958.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	13.00	13.16	13.60	14.05	14.27	14.63	14.38	13.46	12.74	12.80	13.20	11.30
10	12.92	13.39	.....	14.03	14.24	14.40	14.11	13.40	12.69	12.90	13.38	11.57
15	13.18	13.30	13.69	14.17	14.44	14.80	13.93	13.31	12.76	12.92	13.27	10.80
20	13.13	13.47	.....	14.09	14.25	14.65	13.78	13.36	12.83	13.00	12.89	10.68
25	13.17	13.30	.....	14.09	14.25	14.55	13.70	13.00	12.68	13.10	12.83	10.73
EOM	13.30	13.53	.....	14.21	14.25	14.72	13.62	12.95	12.79	13.17	12.63	10.70

WTR YEAR 1977 MAX 10.50 SEP 17, 1977 MIN 14.80 MAR 15, 1977

FURNAS COUNTY

401718099491001. Local number 4N-22W-29AD.

LOCATION.--Lat 40°17'18", long 99°49'10", SE1/4NE1/4 sec.29, T.4 N., R.22 W., Hydrologic Unit 10250009, 2 mi (3.2 km) west and 0.5 mi (0.8 km) north of Edison. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 23 ft (7.0 m), screened 21 to 23 ft (6.4 to 7.0 m).

DATUM.--Altitude of land-surface datum is 2,134 ft (650 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--February 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.1 ft (1.55 m) below land-surface datum, Oct. 13, 1965; lowest, 17.69 ft (5.39 m) below land-surface datum, Feb. 8, 1946.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	8.00G	MAR 1	10.60G	JUN 13	7.90G	AUG 4	5.60G	AUG 23	7.10G	SEP 19	8.10G
DEC 11	9.20G	MAY 3	8.90G	JUL 12	6.30G						

G MEASUREMENT MADE BY ANOTHER AGENCY

GARDEN COUNTY

414413102244501. Local number 20N-44W-5DD.

LOCATION.--Lat 41°44'13", long 102°24'45", NW1/4SE1/4 sec.5, T.20 N., R.44 W., Hydrologic Unit 10180009, 2.6 mi (4.2 km) southeast of Mumper. Owner: Crescent Lake Migratory Bird Refuge.

AQUIFER.--Sandhills deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.50 in (0.04 m), depth 20 ft (6.1 m), screened 18 to 20 ft (5.5 to 6.1 m).

DATUM.--Altitude of land-surface datum is 3,798.19 ft (1,157.69 m). Measuring point: Top of casing 2.50 ft (0.76 m) above land-surface datum.

PERIOD OF RECORD.--August 1934 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.54 ft (1.38 m) below land-surface datum, Oct. 18, 1934; lowest, 8.70 ft (2.65 m) below land-surface datum, Apr. 11, 1941.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	7.43	OCT 14	7.43G	JAN 3	7.76G	MAR 24	7.73G	JUN 21	7.10G	SEP 25	7.51G
JAN 3	7.76										

G MEASUREMENT MADE BY ANOTHER AGENCY

GARFIELD COUNTY

414710099083201. Local number 21N-16W-14CB.

LOCATION.--Lat 41°47'10", long 99°08'32", SW1/4SW1/4 sec.14, T.21 N., R.16 W., Hydrologic Unit 10210007, 5 mi (8.0 km) east and 1 mi (1.6 km) north of Burwell. Owner: Frank Smolik.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), depth 154 ft (46.9 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,174 ft (663 m). Measuring point: Hole in turbine base 2.00 ft (0.61 m) above land-surface datum.

REMARKS.--Water levels affected by pumping during irrigation season.

PERIOD OF RECORD.--October 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.62 ft (6.59 m) below land-surface datum, Oct. 16, 1973; lowest, 24.92 ft (7.60 m) below land-surface datum, Oct. 28, 1959.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	23.56										

GOSPER COUNTY

403626099451801. Local number 7N-21W-2BC.

LOCATION.--Lat 40°36'26", long 99°45'18", SW1/4NW1/4 sec.2, T.7 N., R.21 W., Hydrologic Unit 10200101, 1 mi (1.6 km) west and 2 mi (3.2 km) north of Smithfield. Owner: Andy Larson Estate.

AQUIFER.--Ogallala Formation of Pliocene age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in (0.10 m), depth 132 ft (40.2 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,466.95 ft (751.93 m). Measuring point: Top of casing 0.40 ft (0.12 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping from nearby irrigation wells and by infiltration and deep percolation from nearby irrigation canal.

PERIOD OF RECORD.--September 1934 to July 1940; January 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 56.70 ft (17.28 m) below land-surface datum, Oct. 17, 1975; lowest, 117.80 ft (35.91 m) below land-surface datum, Sept. 26, 1935.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	57.90										

HALL COUNTY

405315098304301. Local number 11N-11W-25CC.

LOCATION.--Lat 40°53'15", long 98°30'43", SW1/4SW1/4 sec.25, T.11 N., R.11 W., Hydrologic Unit 10200103, 1.0 mi (1.6 km) north and 2.0 mi (3.2 km) west of Alda. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 37 ft (11.3 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,922.4 ft (585.9 m). Measuring point: Top of casing 1.60 ft (0.49 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping from nearby wells during irrigation season. Well has been replaced by 405315098304302, local number 11N-11W-25CC2.

PERIOD OF RECORD.--October 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.18 ft (3.71 m) below land-surface datum, June 25, 1949; lowest, 23.99 ft (7.31 m) below land-surface datum, Aug. 15, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	23.29	23.28	23.30	23.32	23.32	23.28	23.24	23.18	22.85	22.80	23.37	21.59
10	23.29	23.28	23.30	23.32	23.31	23.28	23.22	23.17	22.87	22.87	23.49	22.99
15	23.29	23.28	23.31	23.32	23.30	23.28	23.22	23.16	22.87	22.90	23.58	23.13M
20	23.28	23.29	23.32	23.32	23.30	23.27	23.21	23.15	22.85	23.00	23.64	23.13
25	23.28	23.29	23.32	23.31	23.28	23.26	23.20	23.14	22.84	23.10	23.72	23.09
EOM	23.28	23.29	23.32	23.32	23.28	23.26	23.18	22.59	22.81	23.23	23.65	23.03

WTR YEAR 1977 MAX 14.60 SEP 2, 1977 MIN 23.72 AUG 25, 1977

M TAPE MEASUREMENT

HALL COUNTY

405315098304302. Local number 11N-11W-25CC2.

LOCATION.--Lat 40°53'15", long 98°30'43", SW1/4SW1/4 sec.25, T.11 N., R.11 W., Hydrologic Unit 10200103, 1.0 mi (1.6 km) north and 2.0 mi (3.2 km) west of Alda. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 65 ft (19.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,924.0 ft (586.4 m). Measuring point: Top of casing 2.00 ft (0.61 m) above land-surface datum.

REMARKS.--Replacement for 405315098304301, local number 11N-11W-25CC, period of record October 1946 to November 1977. Water levels in well affected by pumping from nearby wells during irrigation season.

PERIOD OF RECORD.-- April 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 22.77 ft (6.94 m) below land-surface datum, June 25, 1977; lowest, 23.97 ft (7.31 m) below land-surface datum, Aug. 25, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	.....	.....	.....	.....	.....	.....	.....	23.15	22.95	22.94	23.71	23.57
10	.....	.....	.....	.....	.....	.....	.....	23.13	22.90	23.08	23.80	23.30
15	.....	.....	.....	.....	.....	.....	23.23	23.11	22.85	23.19	23.90	23.22
20	.....	.....	.....	.....	.....	.....	23.21	23.08	22.80	23.29	23.95	23.13
25	.....	.....	.....	.....	.....	.....	23.19	23.04	22.78	23.40	23.97	23.06
EOM	.....	.....	.....	.....	.....	.....	23.17	23.00	22.79	23.55	23.95	23.01

WTR YEAR 1977 MAX 22.77 JUN 25, 1977 MIN 23.97 AUG 25, 1977

HAMILTON COUNTY

404825097583301. Local number 10N-6W-26BC.

LOCATION.--Lat 40°48'25", long 97°58'33", SW1/4NW1/4 sec.26, T.10 N., R.6 W., Hydrologic Unit 10270203, 4 mi (6.4 km) south of junction of Route 14 and U.S. Highway 34 in Aurora, then 1.0 mi (1.6 km) east and 0.3 mi (0.48 km) south. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 131 ft (39.9 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,790.5 ft (545.7 m). Measuring point: Top of casing 1.50 ft (0.46 m) above land-surface datum.

REMARKS.--Water levels affected by pumping at nearby irrigation wells.

PERIOD OF RECORD.--March 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 84.90 ft (25.88 m) below land-surface datum, June 20, 1956; lowest, 106.97 ft (32.60 m) below land-surface datum, Sept. 8, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	105.22	.....	.....	.....	101.40	100.95	100.53	100.16	99.92	101.15	105.30	104.16
10	104.89	.....	102.71	.....	101.32	100.83	100.49	100.17	99.85	101.72	105.05	103.98
15	104.61	103.39	102.50	101.78	101.25	100.81	100.41	100.09	99.83	102.15	104.87	103.85
20	104.46	103.23	102.41	101.66	101.16	100.71	100.36	100.06	99.75	102.44	104.75	103.70
25	.....	103.02	102.25	101.62	101.06	100.65	100.34	100.01	99.75	103.71	104.56	103.55
EOM	.....	102.92	102.19	101.48	101.05	100.61	100.26	99.98	100.12	104.69	104.33	103.42

WTR YEAR 1977 MAX 99.75 JUN 20, 1977 MIN 105.30 AUG 5, 1977

HAMILTON COUNTY

405514097573901. Local number 11N-6W-13CB.

LOCATION.--Lat 40°55'14", long 97°57'39", NW1/4SW1/4 sec.13, T.11 N., R.6 W., Hydrologic Unit 10270201, 2 mi (3.2 km) east and 3.5 mi (5.6 km) north of Aurora. Owner: O. S. Swedberg.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 24 in (0.61 m), depth 194 ft (59.1 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,812.2 ft (552.4 m). Measuring point: Hole in south side turbine base at land-surface datum.

REMARKS.--Water levels affected by pumping during irrigation season.

PERIOD OF RECORD.--September 1938 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 90.04 ft (27.44 m) below land-surface datum, Sept. 29, 1938; lowest, 117.18 ft (35.72 m) below land-surface datum, Nov. 15, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	117.18	MAY 7	114.62								

HARLAN COUNTY

400920099215501. Local number 2N-18W-9BCC.

LOCATION.--Lat 40°09'20", long 99°21'55", SW1/4SW1/4NW1/4 sec.9, T.2 N., R.18 W., Hydrologic Unit 10250009, 3.5 mi (5.6 km) north of the junction of Route 3 and U.S. Highway 183 in Alma. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5.50 in (0.14 m), depth 170 ft (51.8 m), perforated from 140 to 170 ft (42.7 to 51.8 m).

DATUM.--Altitude of land-surface datum is 2,120 ft (646 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.

REMARKS.--Water levels affected by pumping from nearby wells during irrigation season. Water-quality records for the 1977 water year are published elsewhere in this report.

PERIOD OF RECORD.--June 1964 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 84.39 ft (25.72 m) below land-surface datum, May 11, 1966; lowest, 109.96 ft (33.52 m) below land-surface datum, Sept. 15, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	91.09	90.31	89.89	89.64	90.71	89.19	89.12	88.88	88.78	93.96	95.93	91.72
10	90.88	90.25	89.95	89.49	90.79	89.80	91.89	88.88	90.77	104.35	92.32	91.57
15	90.84	90.10	89.82	89.54	90.30	90.00	89.07	88.81	......	104.82	92.01	91.81
20	90.78	91.06	90.09	89.48	89.99	89.97	89.30	88.82	89.21	104.33	93.32	91.29
25	90.62	89.97	89.72	89.35	89.27	89.74	89.58	......	93.96	102.18	90.15	91.21
EOM	90.52	89.97	89.70	89.38	89.18	90.06	89.13	88.85	93.96	104.97	91.92	91.06

WTR YEAR 1977 MAX 88.72 MAY 27, 1977 MIN 108.55 JUL 23, 1977

HARLAN COUNTY

400620099274601. Local number 2N-19W-28DD.

LOCATION.--Lat 40°06'20", long 99°27'46", SE1/4SE1/4 sec.28, T.2 N., R.19 W., Hydrologic Unit 10250009, 1.8 mi (2.9 km) south of Orleans. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 22 ft (6.7 m), screened 20 to 22 ft (6.1 to 6.7 m).

DATUM.--Altitude of land-surface datum is 1,960 ft (597 m). Measuring point: Top of casing 1.20 ft (0.37 m) above land-surface datum.

PERIOD OF RECORD.--May 1948 to October 1961; March 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.9 ft (1.80 m) below land-surface datum, Feb. 15, 1966; lowest, 12.14 ft (3.70 m) below land-surface datum, Sept. 13, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 1	10.80G	AUG 3	10.60G								

G MEASUREMENT MADE BY ANOTHER AGENCY

HITCHCOCK COUNTY

401458100542201. Local number 3N-32W-11BB.

LOCATION.--Lat 40°14'58", long 100°54'22", NW1/4NW1/4 sec.11, T.3 N., R.32 W., Hydrologic Unit 10250005, 3 mi (4.8 km) west and 1 mi (1.6 km) north of Culbertson. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 18 ft (5.5 m), screened 16 to 18 ft (4.9 to 5.5 m).

DATUM.--Altitude of land-surface datum is 2,615 ft (797 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping of nearby irrigation wells and seepage from irrigation canals.

PERIOD OF RECORD.--May 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.65 ft (3.86 m) below land-surface datum, Feb. 8, 1949; lowest, 15.80 ft (4.82 m) below land-surface datum, Aug. 3, 1970.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	15.30	OCT 29	15.10G	MAR 1	15.20G	JUN 13	15.10G	AUG 10	15.20G		

G MEASUREMENT MADE BY ANOTHER AGENCY

HOLT COUNTY

421605098203001. Local number 27N-9W-34DA.

LOCATION.--Lat 42°16'05", long 98°20'30", NE1/4SE1/4 sec.34, T.27 N., R.9 W., Hydrologic Unit 10220001, 0.5 mi (0.8 km) north of Ewing. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 17 ft (5.2 m), screened 15 to 17 ft (4.6 to 5.2 m).

DATUM.--Altitude of land-surface datum is 1,841 ft (561 m). Measuring point: Top of casing 1.10 ft (0.34 m) above land-surface datum.

PERIOD OF RECORD.--December 1938 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.67 ft (0.81 m) below land-surface datum, Apr. 5, 1960; lowest, 9.90 ft (3.02 m) below land-surface datum, Sept. 1, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	8.56	DEC 1	8.19	FEB 7	7.53	APR 4	7.30	JUN 9	7.29	AUG 8	7.95
OCT 18	8.54	DEC 20	8.01	FEB 22	7.81	APR 28	6.77	JUL 18	7.39	SEP 22	8.16
NOV 8	8.41	JAN 10	7.84	MAR 14	7.46	MAY 16	7.77				

HOLT COUNTY

422845098370701. Local number 29N-11W-21BBB.

LOCATION.--Lat 42°28'45", long 98°37'07", NW1/4NW1/4NW1/4 sec.21, T.29 N., R.11 W., Hydrologic Unit 10150007, 1 mi (1.6 km) east and 1 mi (1.6 km) north of O'Neill. Owner: Murphy.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled stock water-table well, diameter 5 in (0.13 m), depth 55 ft (16.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,001.06 ft (609.92 m). Measuring point: Top of casing 1.20 ft (0.37 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping of nearby wells during irrigation season.

PERIOD OF RECORD.--November 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.87 ft (5.14 m) below land-surface datum, Jan. 14, 1948; lowest, 33.99 ft (10.36 m) below land-surface datum, Oct. 7, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	33.99										

HOLT COUNTY

423148098300601. Local number 30N-10W-32DAA.

LOCATION.--Lat 42°31'48", long 98°30'06", NE1/4SE1/4SE1/4 sec.32, T.30 N., R.10 W., Hydrologic Unit 10150007, 2 mi (3.2 km) east on paved road from O'Neill, then 2 mi (3.2 km) north, 4 mi (6.4 km) west, 2 mi (3.2 km) north, 2 mi (3.2 km) east, and 0.5 mi (0.8 km) north. Owner: William J. Murphy.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 85 ft (25.9 m), perforated 25.5 to 85 ft (7.8 to 25.9 m).

DATUM.--Altitude of land-surface datum is 1,952 ft (595 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in this well affected by withdrawals by nearby irrigation wells completed in this aquifer and withdrawals from a deeper aquifer which has resulted in water movement from the upper aquifer to the deeper aquifer.

PERIOD OF RECORD.--October 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.41 ft (10.79 m) below land-surface datum, Oct. 21, 1966; lowest, 49.86 ft (15.20 m) below land-surface datum, Sept. 30, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	48.64	48.74	48.74	48.75	48.72	48.74	48.71	.....	.....	.....	49.26	49.77
10	48.62	48.75	48.76	48.75	48.72	48.74	48.72	.....	.....	.....	49.36	49.80
15	48.64	48.75	48.73	.....	48.72	48.74	48.71	.....	.....	.....	49.48	49.81
20	48.67	48.75	48.73	48.75	48.73	48.74	48.71	.....	.....	48.90	49.55	49.82
25	48.70	48.76	48.72	48.78	48.73	48.73	48.72	.....	.....	49.00	49.63	49.83
EOM	48.72	48.76	48.74	48.73	48.73	48.72	.....	.....	.....	49.19	49.73	49.86

WTR YEAR 1977 MAX 48.62 OCT 10, 1976 MIN 49.86 SEP 30, 1977

HOLT COUNTY

423730098560001. Local number 31N-14W-27DDC.

LOCATION.--Lat 42°37'30", long 98°56'00", SE1/4SE1/4SE1/4 sec.27, T.31 N., R.14 W., Hydrologic Unit 10150007, 6 mi (9.6 km) north from Atkinson on Route 11, then 2 mi (3.2 km) east. Owner: Elmer Goldfuss.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 72 ft (21.9 m), perforated 32 to 72 ft (9.8 to 21.9 m).

DATUM.--Altitude of land-surface datum is 2,080 ft (634 m). Measuring point: Top of casing at land-surface datum.

REMARKS.--Water levels in well affected by pumping of nearby wells during irrigation season.

PERIOD OF RECORD.--July 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 30.91 ft (9.42 m) below land-surface datum, July 7, 1966; lowest, 43.30 ft (13.20 m) below land-surface datum, Sept. 15, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	.....	.....	.....	.....	41.04	.....	40.45	40.25	40.05	39.71	41.31	41.56
10	42.67	.....	41.60	.....	41.00	.....	40.41	40.36	39.88	39.91	41.41	41.40
15	42.53	.....	.....	41.21	40.97	.....	40.37	40.43	39.73	39.89	40.38	41.38
20	42.40	.....	.....	41.16	40.91	.....	40.35	40.43	39.58	40.20	41.46	41.26
25	42.30	.....	.....	41.18	.....	40.53	40.33	40.33	39.43	40.60	41.47	41.16
EOM	42.16	.....	.....	41.08	.....	40.53	40.29	40.20	39.42	41.00	41.55	41.09

WTR YEAR 1977 MAX 38.59 MAY 4, 1976 MIN 42.67 OCT 10, 1976

KEARNEY COUNTY

403053098581501. Local number 6N-15W-1CB.

LOCATION.--Lat 40°30'53", long 98°58'15", NW1/4SW1/4 sec.1, T.6 N., R.15 W., Hydrologic Unit 10270206, 1 mi (1.6 km) west and 1 mi (1.6 km) north of intersection of U.S. Highway 6 and State Highway 10 in Minden. Owner: Roy Youngquist.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), depth 176 ft (53.6 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,171.80 ft (661.96 m). Measuring point: Hole in turbine base 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well affected by seepage losses from nearby canals and by pumping during irrigation season.

PERIOD OF RECORD.--June 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.88 ft (13.07 m) below land-surface datum, Oct. 21, 1975; lowest, 71.36 ft (21.75 m) below land-surface datum, June 29, 1968.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 13	47.08										

KEARNEY COUNTY

402625098594501. Local number 6N-15W-34DC.

LOCATION.--Lat 40°26'25", long 98°59'45", SW1/4SE1/4 sec.34, T.6 N., R.15 W., Hydrologic Unit 10270206, 4.5 mi (7.2 km) south and 2.5 mi (4.0 km) west of the junction of Route 10 and U.S. Highway 34 near Minden. Owner: Conservation and Survey Division, University of Nebraska-Lincoln.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 210 ft (64.0 m), cased with steel, perforated 190 to 210 ft (57.9 to 64.0 m).

DATUM.--Altitude of land-surface datum is 2,210 ft (674 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Replacement for 402615099000001, local number 5N-15W-3BA1, period of record August 1947 to September 1967. Water levels in well affected by seepage losses from nearby canals and by pumping of nearby wells during irrigation season.

PERIOD OF RECORD.--October 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 79.29 ft (24.17 m) below land-surface datum, May 29, 1976; lowest, 116.56 ft (35.53 m) below land-surface datum, Aug. 8, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	86.26	85.65	-----	-----	-----	-----	-----	81.45	81.30	112.23	95.07	-----
10	85.79	85.63	-----	-----	-----	-----	-----	81.68	81.21	114.36	88.98	-----
15	85.84	85.37	-----	-----	-----	-----	81.85	81.67	81.68	113.91	87.98	-----
20	85.81	85.61	-----	-----	-----	-----	81.76	81.55	92.69	115.70	87.12	-----
25	85.73	85.06	-----	-----	-----	-----	81.89	81.50	98.20	111.09	86.45	-----
EOM	85.76	-----	-----	-----	-----	-----	81.73	81.61	110.60	113.91	86.02	-----

WTR YEAR 1977 MAX 81.10 JUN 9, 1977 MIN 116.01 JUL 19, 1977

KIMBALL COUNTY

411600103393901. Local number 15N-55W-17CC.

LOCATION.--Lat 41°16'00", long 103°39'39", SW1/4SW1/4 sec.17, T.15 N., R.55 W., Hydrologic Unit 10190016, 1.8 mi (2.9 km) north and 0.4 mi (0.6 km) east of intersection of U.S. Highway 30 and State Highway 71 in Kimball. Owner: Kimball Irrigation District.

AQUIFER.--Ogallala Formation of Pliocene age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in (0.10 m), depth 114 ft (34.7 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 4,739.6 ft (1,444.6 m). Measuring point: Top of casing 0.86 ft (0.26 m) above land-surface datum.

REMARKS.--Well destroyed prior to October 21, 1976, no measurements in 1977 water year.

PERIOD OF RECORD.--January 1935 to November 1942; June 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 92.18 ft (28.10 m) below land-surface datum, Jan. 2, 1936; lowest, 100.95 ft (30.77 m) below land-surface datum, Oct. 29, 1963.

LANCASTER COUNTY

403643096433001. Local number 8N-6E-36DD.

LOCATION.--Lat 40°36'43", long 96°43'30", SE1/4SE1/4 sec.36, T.8 N., R.6 E., Hydrologic Unit 10200203, 1 mi (1.6 km) east and 1 mi (1.6 km) south of Sprague. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 53 ft (16.2 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,285 ft (392 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--June 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.41 ft (1.04 m) below land-surface datum, Apr. 5, 1960; lowest, 8.90 ft (2.71 m) below land-surface datum, July 31, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	8.78										

LANCASTER COUNTY

403929096401001. Local number 8N-7E-10DDD.

LOCATION.--Lat 40°39'29", long 96°40'10", NE1/4SE1/4SE1/4 sec.10, T.8 N., R.7 E., Hydrologic Unit 10200203, 0.6 mi (0.96 km) west of Roca. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 41 ft (12.5 m), perforated 36 to 41 ft (11.0 to 12.5 m).

DATUM.--Altitude of land-surface datum is 1,215 ft (370 m). Measuring point: Top of casing 2.00 ft (0.61 m) above land-surface datum.

PERIOD OF RECORD.--June 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.63 ft (0.50 m) below land-surface datum, Aug. 25, 1958; lowest, 12.55 ft (3.83 m) below land-surface datum, June 28, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	12.22										

LANCASTER COUNTY

403833096385501. Local number 8N-7E-20DDA.

LOCATION.--Lat 40°38'33", long 96°38'55", NE1/4SE1/4SE1/4 sec.20, T.8 N., R.7 E., Hydrologic Unit 10200203, 0.5 mi (0.8 km) east and 1.1 mi (1.8 km) south of Roca. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 33 ft (10.1 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,243 ft (379 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--June 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.16 ft (0.05 m) below land-surface datum, Mar. 27, 1960; lowest, 11.55 ft (3.52 m) below land-surface datum, Mar. 28, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	6.08										

LANCASTER COUNTY

404730096440401. Local number 10N-6E-34CA.

LOCATION.--Lat 40°47'30", long 96°44'04", NE1/4SW1/4 sec.34, T.10 N., R.6 E., Hydrologic Unit 10200203, 0.3 mi (0.5 km) west of intersection of Folsom and South Streets in Lincoln. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 36 ft (11.0 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,149 ft (350 m). Measuring point: Top of casing 2.00 ft (0.61 m) above land-surface datum.

REMARKS.--No record for this water year.

PERIOD OF RECORD.--December 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.20 ft (2.80 m) below land-surface datum, Oct. 15, 1973; lowest, 18.53 ft (5.65 m) below land-surface datum, Feb. 20, 1957.

LANCASTER COUNTY

404706096413001. Local number 10N-6E-36CDD.

LOCATION.--Lat 40°47'06", long 96°41'30", SE1/4SE1/4SW1/4 sec.36, T.10 N., R.6 E., Hydrologic Unit 10200203, in Irvingdale Park on the north side of Van Dorn Street between 19th and 20th Streets in Lincoln. Owner: City of Lincoln.

AQUIFER.--Dakota Formation of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in (0.41 m), depth 170 ft (51.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,200 ft (366 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well have had a rising trend for the period of record due partly to recovery from long-term withdrawals from the aquifer for the Lincoln water supply prior to 1950 and partly to recharge from precipitation.

PERIOD OF RECORD.--August 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 52.56 ft (16.02 m) below land-surface datum, Mar. 17, 1977; lowest, 71.19 ft (21.70 m) below land-surface datum, Sept. 5, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	53.57	53.39	53.56	53.60	53.46	53.52	53.42	53.22	53.22	53.29	53.46	53.49
10	53.38	53.63	53.81	53.52	53.35	53.12	53.30	53.31	53.15	53.38	53.58	53.57
15	53.66	53.45	53.42	53.63	53.52	53.57	53.30	53.15	53.27	53.45	53.47	53.40
20	53.54	53.50	53.70	53.43	53.35	53.40	53.25	53.25	53.32	53.35	53.43	53.41
25	53.50	53.27	53.45	53.35	53.53	53.25	53.32	53.30	53.26	53.50	53.40	53.33
EOM	53.64	53.54	53.56	53.46	53.55	53.66	.....	53.41	53.30	53.45	53.50	53.30

WTR YEAR 1977 MAX 52.56 MAR 28, 1977 MIN 53.81 DEC 10, 1976

LANCASTER COUNTY

405405096455501. Local number 11N-6E-20DC.

LOCATION.--Lat 40°54'05", long 96°45'55", SW1/4SE1/4 sec.20, T.11 N., R.6 E., Hydrologic Unit 10200203, 1 mi (1.6 km) north and 1.6 (2.6 km) east of junction of State Highways 2 and 71 northwest of Lincoln. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 30 ft (9.1 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,189 ft (362 m). Measuring point: Top of casing 3.00 ft (0.91 m) above land-surface datum.

PERIOD OF RECORD.--December 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.69 ft (3.56 m) below land-surface datum, Oct. 8, 1963; lowest, 17.53 ft (5.34 m) below land-surface datum, Jan. 5, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 13	16.66										

MERRICK COUNTY

410143098090301. Local number 12N-7W-7AA. Lat 41°01'43", long 98°09'03", NE1/4NE1/4 sec.7, T.12 N., R.7 W., Hydrologic Unit 10200103, 0.5 mi (0.8 km) north and 0.5 mi (0.8 km) west of Chapman. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 13 ft (4.0 m), screened 11 to 13 ft (3.4 to 4.0 m).

DATUM.--Altitude of land-surface datum is 1,762.16 ft (537.11 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping of nearby wells during irrigation season and by evapotranspiration.

PERIOD OF RECORD.--December 1945 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.84 ft (1.17 m) below land-surface datum, Feb. 14, 1974; lowest, 10.75 ft (3.28 m) below land-surface datum, Dec. 3, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 3	10.75	MAY 24	9.29								

MERRICK COUNTY

405755098111301. Local number 12N-8W-36BC.

LOCATION.--Lat 40°57'55", long 98°11'13", SW1/4NW1/4 sec.36, T.12 N., R.8 W., Hydrologic Unit 10200103, 2 mi (3.2 km) southwest of the intersection of the main street in Chapman and U.S. Highway 30, then 2.6 mi (4.2 km) south. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Jetted observation water-table well, diameter 6 in (0.15 m), depth 7.75 ft (2.36 m), perforated 5 to 8 ft (1.5 to 2.4 m).

DATUM.--Altitude of land-surface datum is 1,785.38 ft (544.18 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well affected by evapotranspiration.

PERIOD OF RECORD.--July 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.02 ft (0.31 m) below land-surface datum, June 13, 1967; lowest, 6.21 ft (1.89 m) below land-surface datum, Aug. 31, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	5.62	5.32	5.00	4.76	4.47	4.27	2.97	.....	3.51	4.91	.....	2.75
10	5.56	5.24	4.98	4.70	4.34	4.15	3.45	.....	4.06	4.99	5.27	3.46
15	5.54	5.17	4.93	4.69	.....	3.81	3.33	.....	4.23	4.55	4.75	3.47
20	5.49	5.11	4.85	4.66	4.27	3.78	3.50	4.05	4.11	5.00	4.70	.....
25	5.44	5.05	4.80	4.57	4.27	3.36	3.36	3.70	4.27	5.12	4.17	.....
EOM	5.37	5.04	4.76	4.55	.....	3.34	4.28	2.84	4.61	5.26	2.09	.....

WTR YEAR 1977 MAX 2.09 AUG 31, 1977 MIN 5.65 OCT 1, 1976

MORRILL COUNTY

414107103054501. Local number 20N-50W-28BB.

LOCATION.--Lat 41°41'07", long 103°05'45", NW1/4NW1/4 sec.28, T.20 N., R.50 W., Hydrologic Unit 10180009, 0.1 mi (0.2 km) west of Northport. Owner: Fred Smith.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 1.25 in (0.03 m), depth 35 ft (10.7 m), screened 33 to 35 ft (10.1 to 10.7 m).

DATUM.--Altitude of land-surface datum is 3,675 ft (1,120 m). Measuring point: Top of casing 2.80 ft (0.85 m) above land-surface datum.

PERIOD OF RECORD.--September 1934 to November 1942; November 1944 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.87 ft (3.62 m) below land-surface datum, Sept. 7, 1951; lowest, 17.33 ft (5.28 m) below land-surface datum, Oct. 26, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	13.79										

NUCKOLLS COUNTY

400240098111301. Local number 1N-8W-23AB.

LOCATION.--Lat 40°02'40", long 98°11'13", NW1/4NE1/4 sec.23, T.1 N., R.8 W., Hydrologic Unit 10250016, 0.5 mi (0.8 km) south and 0.5 mi (0.8 km) west of Bostwick. Owner: U.S. Geological Survey.

AQUIFER.--Loess of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 18 ft (5.5 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,598.15 ft (487.12 m). Measuring point: Top of casing 1.50 ft (0.46 m) above land-surface datum.

PERIOD OF RECORD.--April 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.02 ft (0.01 m) below land-surface datum, July 29, 1951; lowest, 7.85 ft (2.39 m) below land-surface datum, Apr. 30, 1950.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	5.85	MAY 9	5.30								

PHELPS COUNTY

403123099261501. Local number 6N-19W-2AA.

LOCATION.--Lat 40°31'23", long 99°26'15", NE1/4NE1/4 sec.2, T.6 N., R.19 W., Hydrologic Unit 10200101, 10 mi (16.1 km) east of Bertrand. Owner: Central Nebraska Public Power and Irrigation District.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 151 ft (46.0 m), screened 149 to 151 ft (45.4 to 46.0 m).

DATUM.--Altitude of land-surface datum is 2,360.81 ft (719.57 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well affected by seepage losses from nearby irrigation canal.

PERIOD OF RECORD.--March 1945 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 48.80 ft (14.87 m) below land-surface datum, Oct. 21, 1975; lowest, 123.70 ft (37.70 m) below land-surface datum, Mar. 9, 1945.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	50.25	JAN 13	50.30	MAR 17	50.88	MAY 4	51.04	JUL 14	64.73	AUG 30	54.30
NOV 4	50.42										

PLATTE COUNTY

412955097192001. Local number 18N-1E-28CD.

LOCATION.--Lat 41°29'55", long 97°19'20", SE1/4SW1/4 sec.28, T.18 N., R.1 E., Hydrologic Unit 10200201, 3 mi (4.8 km) south and 8.5 mi (13.7 km) east of Platte Center. Owner: Loup River Public Power District.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2 in (0.05 m), depth 99 ft (30.2 m), screened 97 to 99 ft (29.6 to 30.2 m).

DATUM.--Altitude of land-surface datum is 1,511.8 ft (460.8 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.

PERIOD OF RECORD.--November 1935 to August 1940; March 1942 to November 1953; November 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 60.30 ft (18.38 m) below land-surface datum, Mar. 27, 1940; lowest, 72.81 ft (22.19 m) below land-surface datum, Oct. 9, 1958.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 2	68.31										

RED WILLOW COUNTY

401015100353701. Local number 2N-29W-4AD.

LOCATION.--Lat 40°10'15", long 100°35'37", SE1/4NE1/4 sec.4, T.2 N., R.29 W., Hydrologic Unit 10250004, 2 mi (3.2 km) south and 1.5 mi (2.4 km) east of intersection of U.S. Highways 6 and 83 in east part of McCook. Owner: Rex S. Haberman.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 26 in (0.66 m), depth 40 ft (12.2 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,481 ft (756 m). Measuring point: Top of casing 3.00 ft (0.91 m) above land-surface datum.

PERIOD OF RECORD.--September 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.6 ft (7.50 m) below land-surface datum, Oct. 9, 1965; lowest, 37.10 ft (11.31 m) below land-surface datum, July 11, 1953.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	29.70	MAR 2	32.40G								

G MEASUREMENT MADE BY ANOTHER AGENCY

SALINE COUNTY

403855097072501. Local number 8N-3E-19ADA.

LOCATION.--Lat 40°38'55", long 97°07'25", NE1/4SE1/4NE1/4 sec.19, T.8 N., R.3 E., Hydrologic Unit 10270202, west edge of Dorchester, on west side of Route 15 between U.S. Highway and Route 33. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5 in (0.13 m), depth 151 ft (46.0 m), perforated 142 to 151 ft (43.3 to 46.0 m).

DATUM.--Altitude of land-surface datum is 1,496 ft (456 m). Measuring point: Top of casing at land-surface datum.

REMARKS.--Water levels in well affected by pumping of nearby wells during irrigation season.

PERIOD OF RECORD.--October 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 96.56 ft (29.43 m) below land-surface datum, Mar. 16, 1963; lowest, 107.15 ft (32.66 m) below land-surface datum, Aug. 25, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	.....	104.21	103.81	103.65	103.16	103.18	102.82	102.25	102.13	104.42	107.15	106.09
10	104.53	104.26	104.18	103.45	102.91	102.91	102.44	102.41	102.02	105.10	107.11	106.07
15	104.88	104.56	103.56	103.57	103.27	103.30	102.50	102.07	102.33	105.25	106.82	105.86
20	104.60	104.34	104.10	103.16	103.02	102.87	102.45	102.32	102.90	106.01	106.84	105.80
25	103.81	105.05	103.55	103.06	103.34	102.50	102.45	102.36	102.96	106.36	106.32	105.60
EOM	104.55	104.68	103.75	103.29	103.15	103.33	102.45	102.51	104.05	106.78	106.29	105.38

WTR YEAR 1977 MAX 101.75 JUN 8, 1977 MIN 107.15 AUG 5, 1977

SAUNDERS COUNTY

410426096220401. Local number 13N-9E-24CC.

LOCATION.--Lat 41°04'26", long 96°22'04", SW1/4SW1/4 sec.24, T.13 N., R.9 E., Hydrologic Unit 10200202, 2 mi (3.2 km) north of Ashland. Owner: City of Lincoln.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 12 ft (3.7 m), screened 10 to 12 ft (3.0 to 3.7 m).

DATUM.--Altitude of land-surface datum is 1,065.22 ft (324.68 m). Measuring point: Top of casing 4.50 ft (1.37 m) above land-surface datum.

REMARKS.--Water levels affected by pumping of nearby wells in City of Lincoln well field.

PERIOD OF RECORD.--October 1933 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.48 ft (0.15 m) below land-surface datum, July 31, 1948; lowest, 9.65 ft (2.94 m) below land-surface datum, Oct. 18, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	9.65	DEC 25	8.30	FEB 25	7.65	APR 25	7.10	JUN 25	7.05	AUG 25	7.75
OCT 25	9.62	JAN 25	7.83	MAR 25	7.23	MAY 25	7.10	JUL 25	8.51	SEP 25	7.38
NOV 25	8.82										

SAUNDERS COUNTY

411005096281502. Local number 14N-8E-24ACD2.

LOCATION.--Lat 41°10'05", long 96°28'15", SE1/4SW1/4NE1/4 sec.24, T.14 N., R.8 E., Hydrologic Unit 10200203, 4 mi (6.4 km) south from the intersection of Routes 92 and 692 near Mead, then 0.65 mi (1.04 km) east and 0.4 mi (0.64 km) south to the south end of load line 2 of the Mead Field Station. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 80 ft (24.4 m), screened 60 to 80 ft (18.3 to 24.4 m).

DATUM.--Altitude of land-surface datum is 1,171 ft (357 m). Measuring point: Top of casing 0.5 ft (0.15 m) above land-surface datum.

REMARKS.--Replacement for well 411005096281502, local number 14N-8E-24ACD1, with period of record July 1964 to November 1970. Water levels in well affected by pumping of nearby wells during irrigation season.

PERIOD OF RECORD.--April 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 42.47 ft (12.94 m) below land-surface datum, May 5, 1974; lowest, 45.41 ft (13.84 m) below land-surface datum, Sept. 30, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	44.17	44.11	44.11	44.17	44.22	44.21	44.48	44.60	44.65	44.69	44.95	45.32
10	44.11	44.11	.....	.....	44.14	44.12	44.48	44.61	44.64	44.70	45.05	45.35
15	44.16	44.06	.....	.....	44.19	44.19	44.51	44.61	44.65	44.75	45.20	45.35
20	44.12	44.07	.....	.....	44.16	44.18	.....	44.65	44.67	44.81	45.17	45.37
25	44.12	44.03	.....	.....	44.18	.....	.....	44.62	44.66	44.85	45.21	45.39
EOM	44.13	.....	44.10	44.20	44.30	44.16	44.59	.....	44.70	44.89	45.30	45.41

WTR YEAR 1977 MAX 43.96 NOV 25, 1976 MIN 45.41 SEP 30, 1977

SCOTTS BLUFF COUNTY

415325103392801. Local number 22N-55W-11DDC.

LOCATION.--Lat 41°53'25", long 103°39'28", SW1/4NE1/4NE1/4 sec.11, T.22 N., R.55 W., Hydrologic Unit 10180009, 0.5 mi (0.8 km) north of the west intersection of Routes 71 and 26 in Scottsbluff, then 0.8 mi (1.3 km) east. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 32 ft (9.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 3,953 ft (1,205 m). Measuring point: Top of casing 0.00 ft (0.00 m) above land-surface datum.

REMARKS.--Water levels in well affected by deep percolation of applied irrigation water and seepage losses of nearby irrigation canal and laterals. Water-quality records for the 1977 water year are published elsewhere in this report.

PERIOD OF RECORD.--August 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 23.05 ft (7.03 m) below land-surface datum, Sept. 25, 1974; lowest, 26.55 ft (8.09 m) below land-surface datum, May 30, 1963.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	24.33	24.64	24.90	25.12	25.31	25.54	25.74	25.95	25.55	25.69	25.41	24.99
10	24.35	24.71	24.95	25.16	25.34	25.59	25.78	26.00	25.80	25.74	25.50	25.11
15	24.42	24.74	24.97	25.19	25.37	25.64	25.80	26.00	25.90	25.95	.....	25.20
20	24.48	24.78	25.00	.....	25.41	25.65	25.83	26.03	25.98	25.88	25.39	25.27
25	24.52	24.81	25.04	25.25	25.45	25.69	25.86	25.67	25.85	25.65	25.45	25.26
EOM	24.58	24.85	25.08	25.29	25.49	25.72	25.90	24.80	25.67	25.18	24.99	25.21

WTR YEAR 1977 MAX 24.33 OCT 5, 1976 MIN 26.06 MAY 20, 1977

SCOTTS BLUFF COUNTY

420000103511501. Local number 23N-56W-6AA.

LOCATION.--Lat 42°00'00", long 103°51'15", NE1/4NE1/4 sec.6, T.23 N., R.56 W., Hydrologic Unit 10180009, 4 mi (6.4 km) north and 2 mi (3.2 km) west of intersection of U.S. Highway 26 and State Highway 29 in Mitchell. Owner: Carl Gompert.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 6 in (0.15 m), depth 118 ft (36.0 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 4,087.7 ft (1,245.9 m). Measuring point: Hole in pump base 0.7 ft (0.21 m) above land-surface datum.

REMARKS.--Water levels affected by withdrawals during irrigation season.

PERIOD OF RECORD.--November 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.24 ft (8.91 m) below land-surface datum, Oct. 26, 1949; lowest, 41.04 ft (12.51 m) below land-surface datum, Oct. 6, 1961.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	36.90										

SEWARD COUNTY

405406097115001. Local number 11N-2E-21DD.

LOCATION.--Lat 40°54'06", long 97°11'50", SE1/4SE1/4 sec.21, T.11 N., R.2 E., Hydrologic Unit 10270201, 4.5 mi (7.2 km) west of Seward. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5 in (0.13 m), depth 123 ft (37.5 m), perforated 112 to 123 ft (34.1 to 37.5 m).

DATUM.--Altitude of land-surface datum is 1,550 ft (472 m). Measuring point: Top of casing 0.00 ft (0.00 m) above land-surface datum.

REMARKS.--Water levels in well affected by withdrawals from nearby irrigation wells.

PERIOD OF RECORD.--May 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 76.37 ft (23.28 m) below land-surface datum, Dec. 20, 1965; lowest, 89.77 ft (27.36 m) below land-surface datum, Aug. 29, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	88.71	87.91	87.55	87.32	.....	86.72	86.08	85.75	85.74	88.01	89.62	88.95
10	88.30	87.90	87.73	86.97	86.06	86.05	86.07	85.95	85.56	88.49	89.61	88.95
15	88.55	87.56	87.23	.....	86.83	86.77	86.06	85.63	85.88	88.41	89.35	88.74
20	88.38	87.66	87.60	.....	86.63	86.40	85.96	85.83	86.36	88.66	89.16	88.71
25	88.20	87.23	87.17	.....	86.63	86.14	86.11	85.87	86.54	89.31	89.05	88.50
EOM	88.20	87.62	87.37	86.75E	86.69	86.71	86.03	86.00	87.31	89.64	88.98	88.36

WTR YEAR 1977 MAX 85.35 MAY 4, 1977 MIN 89.68 AUG 3, 1977

SHERIDAN COUNTY

420341102171701. Local number 24N-43W-15AC.

LOCATION.--Lat 42°03'41", long 102°17'17", SW1/4NE1/4 sec.15, T.24 N., R.43 W., Hydrologic Unit 10150003, near intersection of State Highways 2 and 27 in Ellsworth. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 0.75 in (0.02 m), depth 16.8 ft (5.1 m), perforated 16.0 to 16.8 ft (4.9 to 5.1 m).

DATUM.--Altitude of land-surface datum is 3,912 ft (1,192 m). Measuring point: Top of pipe 3.00 ft (0.91 m) above land-surface datum.

PERIOD OF RECORD.--September 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.15 ft (2.48 m) below land-surface datum, Sept. 4, 1958; lowest, 10.85 ft (3.31 m) below land-surface datum, Oct. 20, 1972.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	10.80										

SHERIDAN COUNTY

423034102415001. Local number 29N-46W-10AA.

LOCATION.--Lat 42°30'34", long 102°41'50", NE1/4NE1/4 sec.10, T.29 N., R.46 W., Hydrologic Unit 10150003, at Mirage Flats project headquarters, 11.5 mi (18.5 km) south of Hay Springs. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 100 ft (30.5 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 3,794.5 ft (1,156.6 m). Measuring point: Top of casing 1.5 ft (0.46 m) above land-surface datum.

REMARKS.--Water levels affected by seepage losses from nearby irrigation canal and laterals and by withdrawals from nearby irrigation wells. Water-quality records for the 1977 water year are published elsewhere in this report.

PERIOD OF RECORD.--September 1953 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 32.47 ft (9.90 m) below land-surface datum, Aug. 25, 1969; lowest, 38.95 ft (11.87 m) below land-surface datum, May 29, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	35.29	35.33	35.43	35.48	35.53	35.59	35.69	35.67	35.82	36.23	35.72	35.63
10	35.27	35.39	35.45	35.45	35.54	35.56	35.70	35.62	35.80	36.17	35.75	35.57
15	35.32	35.35	35.45	35.51	35.55	35.61	35.67	35.62	.....	36.17	.....	35.58
20	35.35	35.42	35.47	35.50	35.56	35.62	35.66	35.68	35.87	36.31	35.74	35.57
25	35.33	35.33	35.43	35.48	35.56	35.60	35.68	35.67	35.99	35.61	35.73	35.55
EOM	35.38	35.43	35.47	35.51	35.59	35.68	35.61	35.74	36.11	35.80	35.68	35.55

WTR YEAR 1977 MAX 35.20 OCT 3, 1976 MIN 36.31 JUL 20, 1977

THOMAS COUNTY

415845100334001. Local number 23N-28W-9DA.

LOCATION.--Lat 41°58'45", long 100°33'40", NE1/4SE1/4 sec.9, T.23 N., R.28 W., Hydrologic Unit 10210001, 1 mi (1.6 km) east of courthouse in Thedford. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 15 ft (4.6 m), screened from 13 to 15 ft (4.0 to 4.6 m).

DATUM.--Altitude of land-surface datum is 2,842 ft (866 m). Measuring point: Top of pipe 2.3 ft (0.7 m) above land-surface datum.

PERIOD OF RECORD.--December 1934 to November 1942; August 1944 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.73 ft (2.66 m) below land-surface datum, Oct. 16, 1970; lowest, 10.98 ft (3.35 m) below land-surface datum, July 23, 1940.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 13	10.60										

VALLEY COUNTY

412955099123201. Local number 18N-16W-30CC.

LOCATION.--Lat 41°29'55", long 99°12'32", SW1/4SW1/4 sec.30, T.18 N., R.16 W., Hydrologic Unit 10210003, 4 mi (6.4 km) west and 5 mi (8.0 km) north of Arcadia. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 15 ft (4.6 m), screened from 13 to 15 ft (4.0 to 4.6 m).

DATUM.--Altitude of land-surface datum is 2,217.61 ft (675.93 m). Measuring point: Top of casing 2.00 ft (0.6 m) above land-surface datum.

REMARKS.--Water levels in well affected by evapotranspiration.

PERIOD OF RECORD.--August 1949 to June 1956; June 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.12 ft (0.34 m) below land-surface datum, July 23, 1962; lowest, 5.90 ft (1.80 m) below land-surface datum, Mar. 1, 1973.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	3.93	DEC 1	4.35G								

G MEASUREMENT MADE BY ANOTHER AGENCY

WEBSTER COUNTY

400423098314001. Local number 1N-11W-11AB.

LOCATION.--Lat 40°04'23", long 98°31'40", NW1/4NE1/4 sec.11, T.1 N., R.11 W., Hydrologic Unit 10250016, 1 mi (1.6 km) south and 0.25 mi (0.4 km) west of intersection of U.S. Highways 136 and 281 in Red Cloud. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 16.9 ft (5.2 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,686 ft (514 m). Measuring point: Top of casing 1.1 ft (0.3 m) above land-surface datum.

PERIOD OF RECORD.--May 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.34 ft (0.41 m) below land-surface datum, July 11, 1951; lowest, 10.56 ft (3.22 m) below land-surface datum, Apr. 5, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	9.00	MAY 9	8.20								

YORK COUNTY

404620097482501. Local number 9N-4W-6DD.

LOCATION.--Lat 40°46'20", long 97°48'25", SE1/4SE1/4 sec.6, T.9 N., R.4 W., Hydrologic Unit 10270203, 0.5 mi (0.8 km) south of Henderson. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 18 in (0.46 m), depth 171 ft (52.1 m), casing perforated 83 to 171 ft (25.3 to 52.1 m).

DATUM.--Altitude of land-surface datum is 1,718 ft (524 m). Measuring point: Top of casing 0.0 ft (0.0 m) above land-surface datum.

REMARKS.--Water levels affected by withdrawals from nearby wells during irrigation season.

PERIOD OF RECORD.--May 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 79.44 ft (24.21 m) below land-surface datum, June 20, 1959; lowest, 95.48 ft (29.10 m) below land-surface datum, Sept. 8, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	93.86	93.38	92.27	91.81	91.15	90.82	90.34	89.92	89.51	90.91	94.20	93.46
10	93.64	92.95	92.45	91.66	91.05	90.61	90.22	89.80	89.42	91.81	94.14	93.38
15	93.67	92.75	92.06	91.60	91.07	90.77	90.12	89.76	89.36	92.10	93.97	93.15
20	93.41	92.69	92.14	91.43	90.85	90.53	90.10	89.70	89.39	93.07	93.81	92.94
25	93.30	92.45	91.93	91.30	90.97	90.36	89.94	89.64	.....	93.64	93.66	92.87
EOM	93.27	92.44	91.84	91.23	90.84	90.56	89.91	89.67	89.96	94.16	93.63	92.70

WTR YEAR 1977 MAX 89.20 JUN 26, 1977 MAX 94.20 AUG 5, 1977

YORK COUNTY

405305097351503. Local number 11N-2W-31BA3.

LOCATION.--Lat 40°53'05", long 97°35'15", NE1/4NW1/4 sec.31, T.11 N., R.2 W., Hydrologic Unit 10270203, south edge of York County Fairgrounds on the north side of York. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 165 ft (50.3 m), perforated below water table.

DATUM.--Altitude of land-surface datum is 1,659 ft (506 m). Measuring point: Top of casing 1.6 ft (0.5 m) above land-surface datum.

REMARKS.--Replacement for well 405305097351501, local number 11N-2W-31BA1, with period of record October 1957 to January 1969. Water levels in well affected by withdrawals from nearby municipal well and by withdrawals from nearby irrigation wells.

PERIOD OF RECORD.--May 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 88.65 ft (27.02 m) below land-surface datum, Apr. 20, 1970; lowest, 120.81 ft (36.82 m) below land-surface datum, July 15, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	99.53	98.51	98.11	-----	-----	97.65	97.55	97.78	98.86	117.46	118.83	100.15
10	99.57	98.16	98.09	97.02	-----	98.12	98.05	97.96	100.36	117.20	106.19	100.35
15	99.09	98.24	98.23	97.90	-----	97.20	96.76	97.97	101.85	116.79	103.71	99.37
20	99.03	97.94	97.40	97.44	-----	97.85	97.94	97.58	102.81	117.31	102.09	99.30
25	98.99	98.09	97.08	-----	-----	97.58	-----	98.25	103.35	116.24	101.15	99.22
EOM	98.40	98.29	-----	-----	-----	97.78	97.75	97.77	115.67	119.00	100.95	-----

WTR YEAR 1977 MAX 96.10 JUN 2, 1977 MIN 119.25 AUG 4, 1977

YORK COUNTY

405305097361001. Local number 11N-3W-36AD.

LOCATION.--Lat 40°53'05", long 97°36'10", NW1/4NE1/4 sec.36, T.11 N., R.3 W., Hydrologic Unit 10270203, 1 mi (1.6 km) south and 0.25 mi (0.4 km) west of intersection of U.S. Highways 34 and 81 north of York. Owner: Mother Jewels Home.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.30 m), depth 175 ft (53.3 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,648 ft (502 m). Measuring point: Hole in pump base 0.0 ft (0.0 m) above land-surface datum.

REMARKS.--Water levels affected by pumping during irrigation season.

PERIOD OF RECORD.--June 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 65.82 ft (20.06 m) below land-surface datum, Sept. 11, 1952; lowest, 85.22 ft (25.98 m) below land-surfacedatum, Oct. 25, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	85.22										

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

(Local identifier: indicates location by township, range, and section. Geologic unit: 110 SDGV sand and gravel deposits, undifferentiated; 111 ALVM, Alluvium; 112 SDGV, Pleistocene sand and gravel deposits; 112 OGLL, Ogallala formation; 123 CORNB, Chadron Formation, basal sand and gravel; 211 DKOT, Dakota formation. SP=Spring)

LOCAL IDENT-I-FIER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	GEO-LOGIC UNIT	DATE OF SAMPLE	TIME	TOTAL DEPTH OF WELL (FT) (72008)	SAMP-LING DEPTH (FT) (00003)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)
				ADAMS COUNTY						
7N 9W11DC 1	40 35 03	098 18 13	01	112SDGV	77-02-24	1030	200	--	575	7.2
				112SDGV	77-08-10	--	200	--	512	7.0
8N 12W34BC 3	40 37 10	098 39 51	03	112SDGV	77-02-24	0900	200	--	293	6.8
				112SDGV	77-08-10	--	200	--	350	7.0
				ANTELOPE COUNTY						
24N 5W31BAAD1	42 01 00	097 56 34	01	112SDGV	77-04-22	--	120	--	635	7.2
				112SDGV	77-08-29	--	120	--	455	7.2
				BOX BUTTE COUNTY						
25N 48W12CC 1	42 09 06	102 52 52	01	121OGLL	77-06-21	--	260	--	978	7.0
26N 49W 6CC 1	42 15 05	103 05 17	01	121OGLL	77-07-13	--	250	--	328	7.6
				BURT COUNTY						
21N 8E28CCDB1	41 47 14	096 30 28	01	211DKOT	77-04-21	--	307	--	2140	7.3
				211DKOT	77-08-30	--	307	--	2200	7.2
23N 8E24BD 1	41 57 10	096 28 31	01	110SDGV	77-04-21	--	86	--	595	7.4
				110SDGV	77-09-16	--	86	--	610	7.2
				BUTLER COUNTY						
13N 2E28AC 1	41 04 13	097 12 06	01	112SDGV	77-05-18	--	70	--	668	7.5
13N 3E13DA 1	41 05 44	097 01 26	01	112SDGV	77-08-18	--	422	--	690	7.7
14N 1E10DDBC1	41 11 39	097 17 45	01	112SDGV	77-08-18	--	281	--	1050	7.4
14N 2E23AB 1	41 10 29	097 09 51	01	112SDGV	77-08-18	--	85	--	850	7.7
14N 4E17CB 1	41 10 59	097 00 08	01	112SDGV	77-08-19	--	324	--	905	7.5
15N 1E27DD 2	41 14 20	097 17 30	02	112SDGV	77-09-14	--	218	--	908	7.4
15N 3E20CBC 1	41 15 15	097 07 10	01	112SDGV	77-08-19	--	404	--	675	7.6
15N 4E10CAC 1	41 16 56	096 57 35	01	112SDGV	77-08-19	--	138	--	563	7.2
16N 2E19CABC1	41 20 35	097 14 19	01	110SDGV	77-08-18	--	122	--	742	7.8
				CHASE COUNTY						
6N 41W21CCC 1	40 27 57	101 59 12	01	121OGLL	77-06-30	--	180	--	327	7.8
7N 38W29CBB 1	40 32 35	101 39 55	01	121OGLL	77-06-30	--	230	--	350	7.6
7N 41W11DAA 1	40 35 16	101 56 06	01	121OGLL	77-06-30	--	192	--	348	7.7
				CHEYENNE COUNTY						
16N 49W 19DBB1	41 21 00	102 59 24	01	--	77-08-11	--	360	--	345	7.0
				CLAY COUNTY						
6N 8W 8CB 3	40 30 01	098 15 29	03	112SDGV	77-02-24	1130	192	--	324	7.0
				112SDGV	77-08-10	--	192	--	330	7.1
7N 5W 2AA 1	40 36 34	097 50 43	01	112SDGV	77-02-23	1430	215	--	487	6.9
				112SDGV	77-08-11	--	215	--	480	6.8
8N 7W27DC 1	40 37 39	098 05 48	01	112SDGV	77-02-24	1315	204	--	622	7.1
				112SDGV	77-08-10	--	204	--	445	7.0
				CUMING COUNTY						
21N 5E23AD 1	41 46 46	096 48 30	01	112SDGV	77-04-20	--	90	--	602	7.3
				112SDGV	77-08-30	--	90	--	621	7.1
22N 5E 3ADDB1	41 54 42	096 50 13	01	112SDGV	77-04-21	--	88	--	885	7.1
				112SDGV	77-08-30	--	88	--	925	7.0
22N 6E33DA 1	41 50 26	096 44 26	01	111ALVM	77-04-20	--	36	--	725	7.1
				111ALVM	77-08-30	--	36	--	750	7.1
23N 4E 8AC 1	41 59 00	096 59 16	01	112SDGV	77-04-21	--	87	--	390	7.4
				112SDGV	77-08-30	--	87	--	390	7.1
				DODGE COUNTY						
17N 9E14CA 1	41 26 29	096 22 42	01	110SDGV	77-04-20	--	24	--	871	7.0

LOCAL IDENT-I-FIER	DATE OF SAMPLE	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)
					ADAMS COUNTY					
7N 9W11DC 1	77-02-24	12.5	3	210	15	70	9.6	32	1.0	7.2
	77-08-10	13.5	1	190	18	62	8.7	27	.9	7.0
8N 12W34BC 1	77-02-24	12.0	3	110	0	34	6.2	10	.4	5.0
	77-08-10	16.5	1	140	10	44	7.6	13	.5	5.7
					ANTELOPE COUNTY					
24N 5W31BAAB1	77-04-22	12.0	1	210	0	64	11	8.9	.3	9.1
	77-08-29	14.0	3	210	0	65	11	8.7	.3	8.9
					BOX BUTTE COUNTY					
25N 48W12CC 1	77-06-21	14.5	2	340	270	88	30	30	.7	18
26N 49W 6CC 1	77-07-13	--	2	130	0	38	8.0	14	.5	6.6
					BURT COUNTY					
21N 8E28CCDA1	77-04-21	12.5	1	780	560	230	49	190	3.0	29
	77-08-30	13.0	5	790	580	240	47	190	2.9	29
23N 8E24BD 1	77-04-21	10.5	1	280	0	78	20	19	.5	3.7
	77-09-16	12.5	35	300	0	88	20	18	.5	3.8
					BUTLER COUNTY					
13N 2E28AC 1	77-08-18	19.0	3	260	0	80	15	38	1.0	6.0
13N 3E13DA 1	77-08-18	15.0	3	310	0	87	23	21	.5	7.1
14N 1E10DDAC1	77-08-18	14.5	1	400	160	140	22	50	1.0	11
14N 2E23AB 1	77-08-18	14.0	3	350	0	110	18	63	1.5	6.7
14N 4E17CB 1	77-08-19	14.0	3	460	120	130	33	20	.4	4.3
15N 1E27DD 2	77-09-16	10.0	1	420	100	140	18	34	.7	7.0
15N 3E20CBC 1	77-08-19	15.0	2	330	19	96	22	28	.6	7.6
15N 4E18CAC 1	77-08-19	18.0	4	250	88	76	15	14	.4	8.0
16N 2E19CABC1	77-08-18	15.0	5	340	66	110	17	22	.5	6.5
					CHASE COUNTY					
6N 41W21CCC 1	77-06-30	14.0	2	74	0	8.0	13	36	1.8	12
7N 38W29CDB 1	77-06-30	15.0	1	150	0	42	10	13	.5	9.2
7N 41W11DAA 1	77-06-30	13.5	1	130	3	40	8.2	14	.5	7.0
					CHEYENNE COUNTY					
16N 49W 19BBB1	77-08-11	12.0	3	140	0	38	9.8	15	.6	6.6
					CLAY COUNTY					
6N 8W 8CB 3	77-02-24	11.5	4	130	0	42	6.4	13	.5	5.6
	77-08-10	17.0	1	130	0	43	6.0	14	.5	5.7
7N 5W 2AA 1	77-02-23	12.0	3	200	12	65	10	20	.6	5.9
	77-08-11	13.5	2	200	2	63	10	21	.6	5.6
8N 7W27DC 1	77-02-24	10.0	8	270	92	85	14	25	.7	6.6
	77-08-10	14.0	2	180	42	57	9.5	19	.6	6.3
					CUMING COUNTY					
21N 5E23AD 1	77-04-20	9.5	1	270	0	78	18	26	.7	4.3
	77-08-30	14.5	5	290	0	85	18	26	.7	4.1
22N 5E 3BDDB1	77-04-21	9.5	1	430	0	120	32	29	.6	11
	77-08-30	13.5	3	470	18	130	35	29	.6	11
22N 6E33BA 1	77-04-20	10.5	1	300	0	82	23	35	.9	7.4
	77-08-30	12.5	4	330	6	91	24	34	.8	7.0
23N 4E 8AC 1	77-04-21	9.5	6	190	0	53	13	8.7	.3	6.8
	77-08-30	13.5	6	190	0	54	13	8.4	.3	6.5
					DODGE COUNTY					
17N 9E14CA 1	77-04-20	12.0	1	420	70	120	28	25	.5	6.8

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT-I-FIER	DATE OF SAMPLE	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	BROMIDE (BR) (MG/L) (71870)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) (70300)
ADAMS COUNTY										
7N 9W11DC 1	77-02-24	243	0	199	44	22	.4	--	25	--
	77-08-10	210	0	170	46	22	.4	--	28	--
8N 12W34BC 3	77-02-24	145	0	119	19	2.8	.3	--	30	--
	77-08-10	160	0	130	26	5.9	.3	--	31	--
ANTELOPE COUNTY										
24N 5W31BAAB1	77-04-22	260	0	210	9.2	2.1	.4	--	38	--
	77-08-29	270	0	220	9.2	2.1	.4	--	39	--
BOX BUTTE COUNTY										
25N 48W12CC 1	77-06-21	94	0	77	4.1	240	.7	--	5.1	566
26N 49W 6CC 1	77-07-13	180	0	150	13	2.0	1.3	--	33	208
BURT COUNTY										
21N 8E20CCDB1	77-04-21	260	0	210	420	120	1.9	--	8.8	--
	77-08-30	260	0	210	440	130	1.9	--	9.4	--
23N 8E24BD 1	77-04-21	370	0	300	17	3.0	.3	--	23	--
	77-09-16	380	0	310	19	3.2	.2	--	25	--
BUTLER COUNTY										
13N 2E28AC 1	77-08-18	330	0	270	40	12	.4	--	38	--
13N 3E13DA 1	77-08-18	390	0	320	37	5.6	.4	--	51	--
14N 1E10DDBC1	77-08-18	340	0	280	200	21	.3	--	32	--
14N 2E23AB 1	77-08-18	450	0	370	91	3.9	.3	--	32	--
14N 4E17CB 1	77-08-19	420	0	340	170	2.8	.3	--	47	--
15N 1E27DD 2	77-09-14	390	0	320	160	8.2	.2	--	45	627
15N 3E20CBC 1	77-08-19	380	0	310	65	3.2	.3	--	39	--
15N 4E10CAC 1	77-08-19	200	0	160	75	17	.2	--	51	--
16N 2E19CABC1	77-08-18	340	0	280	110	5.8	.2	--	48	--
CHASE COUNTY										
6N 41W21CCC 1	77-06-30	150	0	120	5.5	20	.1	--	--	183
7N 38W29CBB 1	77-06-30	180	0	150	17	4.2	.8	--	53	241
7N 41W11DAA 1	77-06-30	160	0	130	15	4.6	.8	--	45	222
CHEYENNE COUNTY										
16N 49W 19BBB1	77-08-11	180	0	150	13	4.7	.7	--	56	243
CLAY COUNTY										
6N 8W 8CB 3	77-02-24	169	0	139	14	4.7	.3	--	26	--
	77-08-10	170	0	140	13	5.3	.4	--	28	--
7N 5W 2AA 1	77-02-23	233	0	191	38	17	.3	--	29	--
	77-08-11	240	0	200	36	16	.3	--	32	--
8N 7W27DC 1	77-02-24	217	0	178	130	14	.3	--	32	--
	77-08-10	170	0	140	67	12	.3	--	32	--
CUMING COUNTY										
21N 5E23AD 1	77-04-20	390	0	320	11	1.8	.4	--	15	--
	77-08-30	400	0	330	9.4	2.0	.4	--	27	--
22N 5E 30DDB1	77-04-21	540	0	440	58	5.7	.5	--	32	--
	77-08-30	550	0	450	58	7.7	.5	--	33	--
22N 6E33BA 1	77-04-20	380	0	310	22	4.0	.4	--	35	--
	77-08-30	390	0	320	23	4.6	.4	--	36	--
23N 4E 8AC 1	77-04-21	230	0	190	16	1.6	.4	--	36	--
	77-08-30	230	0	190	17	1.7	.4	--	39	--
DODGE COUNTY										
17N 9E14CA 1	77-04-20	420	0	340	91	21	.5	--	18	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS- SOLVED NITRATE (N) (MG/L) (00618)	DIS- SOLVED NITRITE (N) (MG/L) (00613)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L) (00625)
				ADAMS COUNTY						
7N 9W11DC 1	77-02-24	352	.48	--	--	--	5.0	--	--	--
	77-08-10	320	.44	--	--	--	3.0	--	--	--
8N 12W34BC 3	77-02-24	185	.25	--	--	--	1.3	--	--	--
	77-08-10	223	.30	--	--	--	2.0	--	--	--
				ANTELOPE COUNTY						
26N 5W31BAAD1	77-04-22	279	.38	--	--	--	1.7	--	--	--
	77-08-29	265	.36	--	--	--	1.7	--	--	--
				BOX BUTTE COUNTY						
25N 48W12CC 1	77-06-21	563	.77	.15	.00	.19	.15	1.2	.30	1.5
26N 49W 6CC 1	77-07-13	214	.28	.62	.00	.59	.59	.00	.13	.13
				BURT COUNTY						
21N 8E28CCDD1	77-04-21	1580	2.15	--	--	--	.00	--	--	--
	77-08-30	1620	2.20	--	--	--	.01	--	--	--
23N 8E24BD 1	77-04-21	354	.48	--	--	--	.00	--	--	--
	77-09-16	370	.50	--	--	--	.04	--	--	--
				BUTLER COUNTY						
13N 2E20AC 1	77-08-18	415	.56	--	--	--	5.1	--	--	--
13N 3E13DA 1	77-08-18	427	.58	--	--	--	.04	--	--	--
14N 1E10DDAC1	77-08-18	698	.95	--	--	--	12	--	--	--
14N 2E21AB 1	77-08-18	561	.76	--	--	--	3.1	--	--	--
14N 4E17CB 1	77-08-19	621	.84	--	--	--	1.6	--	--	--
15N 1E27DD 2	77-09-14	610	.83	.72	.01	.70	.70	.05	.02	.07
15N 3E20CAC 1	77-08-19	445	.61	--	--	--	.04	--	--	--
15N 4E10CAC 1	77-08-19	381	.52	--	--	--	5.9	--	--	--
16N 2E19CABC1	77-08-18	480	.65	--	--	--	.03	--	--	--
				CHASE COUNTY						
6N 41W21CCC 1	77-06-30	--	.25	.10	.01	.12	.11	5.7	.50	6.2
7N 38W29CDB 1	77-06-30	246	.33	1.7	.00	1.7	1.7	.02	.13	.15
7N 41W11DAA 1	77-08-30	228	.30	2.0	.00	2.0	2.0	.01	.11	.12
				CHEYENNE COUNTY						
16N 49W 19DBD1	77-08-11	243	.33	2.1	.00	2.0	2.0	.04	.29	.33
				CLAY COUNTY						
6N 8W 8CB 3	77-02-24	205	.28	--	--	--	2.1	--	--	--
	77-08-10	211	.29	--	--	--	2.6	--	--	--
7N 5W 28A 1	77-02-23	304	.41	--	--	--	.04	--	--	--
	77-08-11	305	.41	--	--	--	.04	--	--	--
8N 7W27DC 1	77-02-24	416	.57	--	--	--	.37	--	--	--
	77-08-10	290	.39	--	--	--	.03	--	--	--
				CUMING COUNTY						
21N 5E23AD 1	77-04-20	350	.48	--	--	--	.02	--	--	--
	77-08-30	375	.51	--	--	--	.57	--	--	--
22N 5E 3DDDD1	77-04-21	558	.76	--	--	--	.66	--	--	--
	77-08-30	585	.80	--	--	--	2.0	--	--	--
22N 6E33BA 1	77-04-20	450	.61	--	--	--	11	--	--	--
	77-08-30	475	.65	--	--	--	13	--	--	--
23N 6E 8AC 1	77-04-21	251	.34	--	--	--	.27	--	--	--
	77-08-30	255	.35	--	--	--	.01	--	--	--
				DODGE COUNTY						
17N 9E14CA 1	77-04-20	536	.73	--	--	--	6.0	--	--	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT-I-FIER	DATE OF SAMPLE	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED ALUM-INUM (AL) (UG/L) (01106)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED BARIUM (BA) (UG/L) (01005)	DIS-SOLVED BERYL-LIUM (BE) (UG/L) (01010)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)
ADAMS COUNTY										
7N 9W11DC 1	77-02-24	--	--	.17	--	--	--	--	80	--
	77-08-10	--	--	.10	--	--	--	--	80	--
8N 12W34BC 3	77-02-24	--	--	.43	--	--	--	--	30	--
	77-08-10	--	--	.21	--	--	--	--	30	--
ANTELOPE COUNTY										
24N 5W31BAAB1	77-04-22	--	--	.24	--	--	--	--	30	--
	77-08-29	--	--	.24	--	--	--	--	30	--
BOX BUTTE COUNTY										
25N 48W12CC 1	77-06-21	1.7	.04	.00	0	0	200	0	30	1
26N 49W 6CC 1	77-07-13	.72	.05	.00	2	1	400	0	40	2
BURT COUNTY										
21N 8E28CCDB1	77-04-21	--	--	.01	--	--	--	--	590	--
	77-08-30	--	--	.08	--	--	--	--	620	--
23N 8E24BD 1	77-04-21	--	--	.07	--	--	--	--	50	--
	77-09-16	--	--	.28	--	--	--	--	50	--
BUTLER COUNTY										
13N 2E28AC 1	77-08-18	--	--	.37	--	--	--	--	60	--
13N 3E13DA 1	77-08-18	--	--	.07	--	--	--	--	90	--
14N 1E10DDBC1	77-08-18	--	--	.22	--	--	--	--	70	--
14N 2E23AB 1	77-08-18	--	--	.17	--	--	--	--	70	--
14N 4E17CB 1	77-08-19	--	--	.06	--	--	--	--	70	--
15N 1E27DD 2	77-09-14	.77	.22	.20	10	8	0	0	60	2
15N 3E20CBC 1	77-08-19	--	--	.10	--	--	--	--	100	--
15N 4E10CAC 1	77-08-19	--	--	.02	--	--	--	--	90	--
16N 2E19CABC1	77-08-18	--	--	.13	--	--	--	--	50	--
CHASE COUNTY										
6N 41W21CCC 1	77-06-30	4.3	.09	.08	0	0	0	0	80	0
7N 38W29CBB 1	77-06-30	1.9	.06	.03	0	6	0	0	60	2
7N 41W11DAA 1	77-06-30	2.1	.07	.01	0	5	0	0	70	1
CHEYENNE COUNTY										
16N 49W 19BBB1	77-08-11	2.3	.57	.02	20	5	30	0	50	2
CLAY COUNTY										
6N 8W 8CB 3	77-02-24	--	--	.47	--	--	--	--	20	--
	77-08-10	--	--	.25	--	--	--	--	20	--
7N 5W 2AA 1	77-02-23	--	--	.18	--	--	--	--	40	--
	77-08-11	--	--	.19	--	--	--	--	40	--
8N 7W27DC 1	77-02-24	--	--	.22	--	--	--	--	40	--
	77-08-10	--	--	.18	--	--	--	--	30	--
CUMING COUNTY										
21N 5E23AD 1	77-04-20	--	--	.04	--	--	--	--	70	--
	77-08-30	--	--	.34	--	--	--	--	60	--
22N 5E 30DDB1	77-04-21	--	--	.10	--	--	--	--	70	--
	77-08-30	--	--	.13	--	--	--	--	80	--
22N 6E33BA 1	77-04-20	--	--	.08	--	--	--	--	90	--
	77-08-30	--	--	.08	--	--	--	--	90	--
23N 4E 8AC 1	77-04-21	--	--	.03	--	--	--	--	30	--
	77-08-30	--	--	.09	--	--	--	--	50	--
DODGE COUNTY										
17N 9E14CA 1	77-04-20	--	--	3.0	--	--	--	--	50	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)	DIS-SOLVED COBALT (CO) (UG/L) (01035)	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED LITHIUM (LI) (UG/L) (01130)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L) (01060)
					ADAMS COUNTY					
7N 9W11DC 1	77-02-24	--	--	11	30	--	--	10	--	--
	77-08-10	--	--	--	10	--	--	0	--	--
8N 12W34BC 3	77-02-24	--	--	2	20	--	--	0	--	--
	77-08-10	--	--	--	10	--	--	0	--	--
					ANTELOPE COUNTY					
24N 5W31BAAB1	77-04-22	--	--	0	30	--	--	0	--	--
	77-08-29	--	--	3	20	--	--	0	--	--
					BOX BUTTE COUNTY					
25N 48W12CC 1	77-06-21	10	1	0	1800	1	40	780	.0	0
26N 49W 6CC 1	77-07-13	0	1	1	60	8	30	310	.0	1
					BURT COUNTY					
21N 8E28CCDB1	77-04-21	--	--	0	2200	--	--	120	--	--
	77-08-30	--	--	1	2300	--	--	130	--	--
23N 8E24BD 1	77-04-21	--	--	0	7000	--	--	920	--	--
	77-09-16	--	--	2	4600	--	--	910	--	--
					BUTLER COUNTY					
13N 2E28AC 1	77-08-18	--	--	--	70	--	--	0	--	--
13N 3E13DA 1	77-08-18	--	--	--	70	--	--	240	--	--
14N 1E10DDBC1	77-08-18	--	--	--	1100	--	--	0	--	--
14N 2E23AB 1	77-08-18	--	--	--	80	--	--	10	--	--
14N 4E17CB 1	77-08-19	--	--	--	80	--	--	460	--	--
15N 1E27DD 2	77-09-14	0	0	1	10	37	50	30	.0	1
15N 3E20CBC 1	77-08-19	--	--	--	40	--	--	400	--	--
15N 4E10CAC 1	77-08-19	--	--	--	250	--	--	20	--	--
16N 2E19CABC1	77-08-18	--	--	--	80	--	--	670	--	--
					CHASE COUNTY					
6N 41W21CCC 1	77-06-30	0	0	3	50	1	40	20	.0	5
7N 38W29CBB 1	77-06-30	0	0	2	30	1	30	4	.0	5
7N 41W11DAA 1	77-06-30	0	0	1	20	4	30	4	.0	5
					CHEYENNE COUNTY					
16N 49W 19BBB1	77-08-11	0	0	10	70	3	20	10	.0	1
					CLAY COUNTY					
6N 8W 8CB 3	77-02-24	--	--	1	30	--	--	0	--	--
	77-08-10	--	--	--	10	--	--	0	--	--
7N 5W 2AA 1	77-02-23	--	--	2	0	--	--	0	--	--
	77-08-11	--	--	--	10	--	--	0	--	--
8N 7W27DC 1	77-02-24	--	--	9	50	--	--	20	--	--
	77-08-10	--	--	--	10	--	--	0	--	--
					CUMING COUNTY					
21N 5E23AD 1	77-04-20	--	--	2	40	--	--	120	--	--
	77-08-30	--	--	2	180	--	--	1100	--	--
22N 5E 3BDDB1	77-04-21	--	--	4	10	--	--	250	--	--
	77-08-30	--	--	5	70	--	--	430	--	--
22N 6E33BA 1	77-04-20	--	--	2	10	--	--	10	--	--
	77-08-30	--	--	2	40	--	--	0	--	--
23N 8E 8AC 1	77-04-21	--	--	0	50	--	--	350	--	--
	77-08-30	--	--	1	1500	--	--	350	--	--
					DODGE COUNTY					
17N 9E14CA 1	77-08-20	--	--	16	150	--	--	560	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DIS-SOLVED NICKEL (NI) (UG/L) (01065)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED STRON-TIUM (SR) (UG/L) (01080)	DIS-SOLVED VANA-DIUM (V) (UG/L) (01085)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)
				ADAMS COUNTY			
7N 9W11DC 1	77-02-24	--	--	--	--	--	20
	77-08-10	--	--	--	--	--	--
8N 12W34BC 3	77-02-24	--	--	--	--	--	10
	77-08-10	--	--	--	--	--	--
				ANTELOPE COUNTY			
24N 5W31BAAB1	77-04-22	--	--	--	--	--	40
	77-08-29	--	--	--	--	--	60
				BOX BUTTE COUNTY			
25N 48W12CC 1	77-06-21	3	0	0	960	2.7	140
26N 49W 6CC 1	77-07-13	4	0	0	300	1.9	5400
				BURT COUNTY			
21N 8E28CCDB1	77-04-21	--	--	--	--	--	2500
	77-08-30	--	--	--	--	--	1400
23N 8E24BD 1	77-04-21	--	--	--	--	--	30
	77-09-16	--	--	--	--	--	40
				BUTLER COUNTY			
13N 2E28AC 1	77-08-18	--	--	--	--	--	--
13N 3E13DA 1	77-08-18	--	--	--	--	--	--
14N 1E10DDBC1	77-08-18	--	--	--	--	--	--
14N 2E23AB 1	77-08-18	--	--	--	--	--	--
14N 4E17CB 1	77-08-19	--	--	--	--	--	--
15N 1E27DD 2	77-09-14	1	3	0	560	12	40
15N 3E20CBC 1	77-08-19	--	--	--	--	--	--
15N 4E10CAC 1	77-08-19	--	--	--	--	--	--
16N 2E19CABC1	77-08-18	--	--	--	--	--	--
				CHASE COUNTY			
6N 41W21CCC 1	77-06-30	4	0	0	170	.0	6
7N 38W29CBB 1	77-06-30	6	2	0	450	24	10
7N 41W11DAA 1	77-06-30	6	1	0	370	23	0
				CHEYENNE COUNTY			
16N 49W 19BBB1	77-08-11	2	1	0	420	21	50
				CLAY COUNTY			
6N 8W 8CB 3	77-02-24	--	--	--	--	--	10
	77-08-10	--	--	--	--	--	--
7N 5W 2AA 1	77-02-23	--	--	--	--	--	20
	77-08-11	--	--	--	--	--	--
8N 7W27DC 1	77-02-24	--	--	--	--	--	20
	77-08-10	--	--	--	--	--	--
				CUMING COUNTY			
21N 5E23AD 1	77-04-20	--	--	--	--	--	80
	77-08-30	--	--	--	--	--	40
22N 5E 3BDDB1	77-04-21	--	--	--	--	--	40
	77-08-30	--	--	--	--	--	40
22N 6E33BA 1	77-04-20	--	--	--	--	--	100
	77-08-30	--	--	--	--	--	70
23N 4E 8AC 1	77-04-21	--	--	--	--	--	280
	77-08-30	--	--	--	--	--	60
				DODGE COUNTY			
17N 9E14CA 1	77-04-20	--	--	--	--	--	170

LOCAL IDENT- I- FIER	LAT- I- TUDE	LONG- I- TUDE	SEQ. NO.	GEO- LOGIC UNIT	DATE OF SAMPLE	TIME	TOTAL DEPTH OF WELL (FT) (72008)	SAMP- LING DEPTH (FT) (00003)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)
				DODGE COUNTY						
17N 9E14CA 1	41 26 29	096 22 42	01	110SDGV	77-08-31	--	24	--	960	7.0
18N 9E30CB 1	41 29 58	096 27 35	01	110SDGV	77-04-20	--	37	--	385	6.8
				110SDGV	77-08-31	--	37	--	400	7.0
19N 5E 1CB 1	41 38 44	096 48 25	01	112SDGV	77-04-21	--	70	--	905	6.9
				112SDGV	77-08-30	--	70	--	935	7.1
19N 6E 1AC 1	41 38 57	096 40 53	01	112SDGV	77-04-21	--	86	--	315	7.5
				112SDGV	77-08-30	--	86	--	340	7.3
19N 7E 1AA 1	41 39 09	096 33 40	01	112SDGV	77-04-20	--	100	--	505	7.5
				112SDGV	77-08-30	--	100	--	508	7.2
20N 7E 4BB 1	41 44 24	096 37 38	01	112SDGV	77-04-20	--	90	--	799	7.0
				112SDGV	77-08-30	--	90	--	800	7.1
20N 8E20ABBD1	41 41 47	096 32 55	01	112SDGV	77-04-20	--	127	--	935	7.2
				112SDGV	77-08-30	--	127	--	970	7.2
				DOUGLAS COUNTY						
16N 10E 8AB 1	41 22 36	096 19 58	01	111ALVM	77-04-20	--	15	--	645	7.0
				111ALVM	77-08-31	--	15	--	680	7.0
				DUNDY COUNTY						
1N 40W29BB 2	40 01 55	101 52 13	02	110SDGV	77-06-16	--	49	--	1250	7.3
2N 38W10DD 1	40 08 52	101 35 27	01	121OGLL	77-06-16	--	180	--	449	7.4
4N 38W30BCC 1	40 17 03	101 39 48	01	121OGLL	77-06-15	--	180	--	403	7.4
				FILLMORE COUNTY						
5N 4W12BD 1	40 25 00	097 43 14	01	112SDGV	77-02-23	1340	131	--	435	6.8
				112SDGV	77-08-11	--	131	--	445	7.0
7N 1W19AA 2	40 33 56	097 27 56	02	112SDGV	77-09-28	--	255	--	358	9.1
7N 3W36DB 1	40 31 45	097 36 09	01	112SDGV	77-02-23	1300	196	--	540	7.8
				112SDGV	77-08-11	--	196	--	525	7.2
8N 1W20DB 2	40 38 43	097 27 06	02	112SDGV	77-02-23	1115	306	--	2230	7.3
				112SDGV	77-08-11	--	306	--	2450	7.4
				FRANKLIN COUNTY						
4N 14W23CC 1	40 17 35	098 52 27	01	121OGLL	77-06-29	--	265	--	358	7.9
				FRONTIER COUNTY						
6N 25W 4DDBD1	40 30 42	100 09 32	01	--	77-06-14	--	154	--	545	7.3
				HAMILTON COUNTY						
9N 7W 6DAD 2	40 46 33	098 09 12	02	112SDGV	77-02-24	1430	190	--	680	7.2
				112SDGV	77-08-10	--	190	--	655	7.1
10N 6W 9CB 1	40 51 47	098 00 45	01	112SDGV	77-02-24	1515	248	--	445	7.4
				112SDGV	77-08-10	--	248	--	412	7.2
11N 7W 3BBB 1	40 57 31	098 06 44	01	112SDGV	77-03-15	--	180	--	1320	--
				112SDGV	77-05-31	--	180	--	--	--
				112SDGV	77-07-15	1350	180	--	2470	--
				112SDGV	77-07-15	1410	180	--	1930	--
11N 7W 3BBD 1	40 57 20	098 06 41	01	112SDGV	77-06-29	1200	--	--	945	--
11N 7W 3CC 1	40 56 45	098 06 42	01	112SDGV	76-11-09	1000	180	178	3040	--
				112SDGV	76-11-09	1630	180	123	3040	--
				112SDGV	76-11-09	1700	180	118	2170	--
				112SDGV	76-11-09	1730	180	113	2490	--
11N 7W 3CC 1	40 56 45	098 06 42	01	112SDGV	77-03-04	--	180	--	--	--
				112SDGV	77-04-13	1416	180	--	3140	--
				112SDGV	77-04-13	1458	180	--	3310	--
				112SDGV	77-04-13	1608	180	--	3240	--
				112SDGV	77-04-13	1806	180	--	3200	--
				112SDGV	77-07-18	1725	180	--	2020	--
				112SDGV	77-07-18	2251	180	--	2040	--
				112SDGV	77-07-19	0845	180	--	2190	--
				112SDGV	77-07-20	1100	180	--	2450	--
				112SDGV	77-07-27	1135	180	--	2910	--
				112SDGV	77-07-28	0819	180	--	2610	--
				112SDGV	77-07-29	1353	180	--	2390	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
DODGE COUNTY										
17N 9E14CA 1	77-08-31	17.0	4	470	120	140	29	27	.5	6.1
18N 9E30CB 1	77-04-20	12.0	1	160	19	42	13	15	.5	5.9
	77-08-31	14.5	5	170	20	44	14	15	.5	5.7
19N 5E 1CB 1	77-04-21	12.0	1	390	0	120	22	47	1.0	4.6
	77-08-30	16.5	4	420	0	130	22	47	1.0	4.5
19N 6E 1AC 1	77-04-21	11.5	8	140	10	40	10	5.8	.2	5.2
	77-08-30	15.5	10	160	24	44	11	5.9	.2	5.1
19N 7E 1AA 1	77-04-20	11.5	3	220	0	64	14	16	.5	9.7
	77-08-30	13.5	5	220	0	66	14	15	.4	9.0
20N 7E 4BB 1	77-04-20	10.5	1	390	0	110	28	27	.6	3.0
	77-08-30	15.5	3	380	0	110	26	28	.6	2.9
20N 8E20ABBD1	77-04-20	11.0	2	400	0	120	25	48	1.0	12
	77-08-30	15.0	6	430	0	130	25	52	1.1	12
DOUGLAS COUNTY										
16N 10E 8AB 1	77-04-20	12.0	1	300	67	94	17	18	.4	3.9
	77-08-31	18.5	5	320	57	100	17	18	.4	4.1
DUNDY COUNTY										
1N 40W29BB 2	77-06-16	14.0	4	480	260	120	43	72	1.4	22
2N 38W10DD 1	77-06-16	16.0	2	180	0	47	14	18	.6	11
4N 38W30BCC 1	77-06-15	15.5	2	150	0	41	12	16	.6	9.9
FILLMORE COUNTY										
5N 4W12BD 1	77-02-23	12.5	3	170	5	56	7.4	23	.8	7.3
	77-08-11	13.5	2	170	3	54	7.7	24	.8	7.3
7N 1W19AA 2	77-09-28	12.0	2	67	0	5.4	13	45	2.4	5.0
7N 3W36DB 1	77-02-23	10.0	3	230	46	71	12	24	.7	4.8
	77-08-11	14.0	2	210	30	66	11	29	.9	4.7
8N 1W20DB 2	77-02-23	13.0	4	1200	810	370	55	110	1.4	8.5
	77-08-11	14.5	2	1200	910	400	57	130	1.6	8.7
FRANKLIN COUNTY										
4N 14W23CC 1	77-06-29	17.0	1	140	1	40	9.7	6.8	.3	7.8
FRONTIER COUNTY										
6N 25W 4DDBD1	77-06-14	13.0	3	260	21	82	13	5.8	.2	8.4
HAMILTON COUNTY										
9N 7W 6DAD 2	77-02-24	12.5	4	280	90	88	15	28	.7	6.0
	77-08-10	14.0	2	280	90	87	15	27	.7	6.5
10N 6W 4[illegible] 1	77-02-24	11.5	3	180	15	57	9.4	21	.7	5.1
	77-08-10	14.0	2	160	0	51	8.1	21	.7	4.8
11N 7W 3BBB 1	77-03-15	--	--	630	380	200	31	53	.9	12
	77-05-31	--	1	750	490	240	36	57	.9	14
	77-07-15	--	2	1300	1000	440	57	98	1.2	21
	77-07-15	--	2	940	660	310	41	78	1.1	16
11N 7W 3BBD 1	77-06-29	--	1	420	240	130	23	35	.7	8.4
11N 7W 3CC 1	76-11-09	--	--	1500	1300	470	85	77	.9	23
	76-11-09	--	--	1500	1300	470	85	80	.9	23
	76-11-09	--	--	1100	860	350	60	54	.7	21
	76-11-09	--	--	1200	930	360	67	62	.8	22
11N 7W 3CC 1	77-03-04	--	2	1500	1300	470	75	72	.8	21
	77-04-13	--	--	1700	1500	540	88	95	1.0	21
	77-04-13	--	--	1700	1500	530	89	92	1.0	20
	77-04-13	--	--	1700	1400	520	88	90	1.0	21
	77-04-13	--	--	1500	1300	480	85	88	1.0	21
	77-07-18	--	1	900	690	280	49	89	1.3	11
	77-07-18	--	2	900	690	280	49	87	1.3	11
	77-07-19	--	2	990	780	310	53	88	1.2	12
	77-07-20	--	1	1200	950	370	59	89	1.1	12
	77-07-27	--	2	1500	1200	470	76	85	1.0	20
	77-07-28	--	2	1200	1000	390	64	73	.9	17
	77-07-29	--	2	1200	920	360	61	70	.9	17

LOCAL IDENT-I-FIER	DATE OF SAMPLE	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	BROMIDE (BR) (MG/L) (71870)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) (70300)
				DODGE COUNTY						
17N 9E10CA 1	77-08-31	430	0	350	120	35	.5	--	16	--
18N 9E30CB 1	77-04-20	170	0	140	23	4.6	.2	--	36	--
	77-08-31	180	0	150	22	4.2	.2	--	37	--
19N 5E 1CB 1	77-04-21	500	0	410	37	11	.3	--	29	--
	77-08-30	520	0	430	37	12	.3	--	30	--
19N 6E 1AC 1	77-04-21	160	0	130	28	4.9	.6	--	32	--
	77-08-30	160	0	130	29	4.4	.2	--	37	--
19N 7E 1AA 1	77-04-20	290	0	240	27	3.3	.5	--	45	--
	77-08-30	280	0	230	34	3.2	.6	--	45	--
20N 7E 4BB 1	77-04-20	490	0	400	49	3.5	.4	--	29	--
	77-08-30	500	0	410	55	4.2	.3	--	31	--
20N 8E20ABBD1	77-04-20	520	0	430	90	7.9	.8	--	24	--
	77-08-30	530	0	430	110	12	.9	--	25	--
				DOUGLAS COUNTY						
16N 10E 8AB 1	77-04-20	290	0	240	100	4.9	.5	--	12	--
	77-08-31	320	0	260	100	5.1	.5	--	14	--
				DUNDY COUNTY						
1N 40W29BB 2	77-06-16	270	0	220	330	50	1.3	--	49	851
2N 38W10DD 1	77-06-16	220	0	180	19	6.8	1.2	--	55	281
4N 38W30BCC 1	77-06-15	210	0	170	16	1.6	.9	--	73	--
				FILLMORE COUNTY						
5N 4W12BD 1	77-02-23	201	0	165	29	13	.4	--	33	--
	77-08-11	200	0	160	30	16	.3	--	37	--
7N 1W19AA 2	77-09-28	96	12	99	72	12	.2	--	--	191
7N 3W36DA 1	77-02-23	220	0	180	68	17	.3	--	26	--
	77-08-11	220	0	180	67	16	.4	--	27	--
8N 1W20DB 2	77-02-23	412	0	338	780	66	.3	--	27	--
	77-08-11	390	0	320	920	69	.3	--	26	--
				FRANKLIN COUNTY						
8N 14W23CC 1	77-06-29	170	0	140	9.4	2.7	.0	--	--	214
				FRONTIER COUNTY						
6N 25W 4DDBD1	77-06-14	290	0	240	14	3.3	.4	--	56	338
				HAMILTON COUNTY						
9N 7W 6DAD 2	77-02-24	233	0	191	110	18	.3	--	29	--
	77-08-10	230	0	190	97	22	.3	--	30	--
10N 8W 4CB 1	77-02-24	203	0	167	42	9.6	.4	--	27	--
	77-08-10	200	0	160	40	8.8	.5	--	27	--
11N 7W 3BBB 1	77-03-15	310	--	254	390	21	--	--	--	--
	77-05-31	320	--	260	500	25	.5	.1	21	--
	77-07-15	410	--	340	1000	33	.4	.2	28	--
	77-07-15	350	--	290	740	26	.4	.2	26	--
11N 7W 3BAD 1	77-06-20	220	--	180	240	14	.5	.1	21	--
11N 7W 3CC 1	76-11-09	304	--	249	660	32	--	--	--	--
	76-11-09	294	--	241	670	32	--	--	--	--
	76-11-09	319	--	262	450	25	--	--	--	--
	76-11-09	304	--	249	490	27	--	--	--	--
11N 7W 3CC 1	77-03-04	280	--	230	560	31	.4	.1	25	--
	77-04-13	280	--	230	710	37	--	--	--	--
	77-04-13	280	--	230	660	33	--	--	--	--
	77-04-13	280	--	230	680	36	--	--	--	--
	77-04-13	270	--	220	650	34	--	--	--	--
	77-07-18	260	--	210	460	30	.4	.3	23	--
	77-07-18	260	--	210	440	30	.4	.1	24	--
	77-07-19	260	--	210	470	30	.4	.3	24	--
	77-07-20	270	--	220	530	32	.4	.2	24	--
	77-07-27	300	--	250	690	30	.4	.3	28	--
	77-07-28	280	--	230	560	26	.4	.3	26	--
	77-07-29	280	--	230	530	25	.4	.1	26	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS- SOLVED NITRATE (N) (MG/L) (00618)	DIS- SOLVED NITRITE (N) (MG/L) (00613)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L) (00625)
DODGE COUNTY										
17N 9E14CA 1	77-08-31	628	.85	--	--	--	9.4	--	--	--
18N 9E30CB 1	77-04-20	256	.35	--	--	--	7.3	--	--	--
	77-08-31	263	.36	--	--	--	7.1	--	--	--
19N 5E 1CB 1	77-04-21	566	.77	--	--	--	11	--	--	--
	77-08-30	597	.81	--	--	--	13	--	--	--
19N 6E 1AC 1	77-04-21	215	.29	--	--	--	.08	--	--	--
	77-08-30	223	.30	--	--	--	.06	--	--	--
19N 7E 1AA 1	77-04-20	327	.44	--	--	--	.09	--	--	--
	77-08-30	326	.44	--	--	--	.05	--	--	--
20N 7E 4BB 1	77-04-20	493	.67	--	--	--	.00	--	--	--
	77-08-30	506	.69	--	--	--	.01	--	--	--
20N 8E20ABBD1	77-04-20	589	.80	--	--	--	.03	--	--	--
	77-08-30	633	.86	--	--	--	.03	--	--	--
DOUGLAS COUNTY										
16N 10E 8AB 1	77-04-20	394	.54	--	--	--	.02	--	--	--
	77-08-31	418	.57	--	--	--	.05	--	--	--
DUNDY COUNTY										
1N 40W29BB 2	77-06-16	824	1.16	.15	.03	.16	.16	.31	.23	.54
2N 38W10DD 1	77-06-16	293	.38	2.7	.01	2.7	2.7	.01	.09	.10
4N 38W30BCC 1	77-06-15	280	.38	1.2	.01	1.2	1.2	.01	.05	.06
FILLMORE COUNTY										
5N 4W12BD 1	77-02-23	279	.38	--	--	--	2.3	--	--	--
	77-08-11	288	.39	--	--	--	2.9	--	--	--
7N 1W19AA 2	77-09-28	--	.26	.03	.00	.05	.03	.90	.00	.68
7N 3W36DB 1	77-02-23	341	.46	--	--	--	2.2	--	--	--
	77-08-11	339	.46	--	--	--	2.1	--	--	--
8N 1W20DB 2	77-02-23	1750	2.38	--	--	--	30	--	--	--
	77-08-11	1970	2.68	--	--	--	37	--	--	--
FRANKLIN COUNTY										
4N 14W23CC 1	77-06-29	--	.29	--	.00	1.6	--	.00	.05	.05
FRONTIER COUNTY										
6N 25W 4DDBD1	77-06-14	348	.46	4.9	.01	4.8	4.8	.02	.43	.45
HAMILTON COUNTY										
9N 7W 6DAD 2	77-02-24	421	.57	--	--	--	2.4	--	--	--
	77-08-10	413	.56	--	--	--	3.4	--	--	--
10N 6W 4CB 1	77-02-24	280	.38	--	--	--	1.8	--	--	--
	77-08-10	265	.36	--	--	--	1.1	--	--	--
11N 7W 3BBB 1	77-03-15	--	--	--	--	--	12	--	--	--
	77-05-31	1110	--	--	--	--	14	--	--	--
	77-07-15	2000	2.72	--	--	--	26	--	--	--
	77-07-15	1490	2.03	--	--	--	18	--	--	--
11N 7W 3BBD 1	77-06-29	647	.88	--	--	--	15	--	--	--
11N 7W 3CC 1	76-11-09	--	--	--	--	--	220	--	--	--
	76-11-09	--	--	--	--	--	220	--	--	--
	76-11-09	--	--	--	--	--	66	--	--	--
	76-11-09	--	--	--	--	--	170	--	--	--
11N 7W 3CC 1	77-03-04	2320	--	--	--	--	210	--	--	--
	77-04-13	--	--	--	--	--	270	--	--	--
	77-04-13	--	--	--	--	--	280	--	--	--
	77-04-13	--	--	--	--	--	270	--	--	--
	77-04-13	--	--	--	--	--	240	--	--	--
	77-07-18	1600	2.18	--	--	--	120	--	--	--
	77-07-18	1580	2.15	--	--	--	120	--	--	--
	77-07-19	1690	2.30	--	--	--	130	--	--	--
	77-07-20	1870	2.54	--	--	--	140	--	--	--
	77-07-27	2390	3.25	--	--	--	190	--	--	--
	77-07-28	2000	2.72	--	--	--	160	--	--	--
	77-07-29	1890	2.57	--	--	--	150	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L) (00666)	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED BERYL- LIUM (BE) (UG/L) (01010)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)
				DODGE COUNTY						
17N 9E14CA 1	77-08-31	--	--	.03	--	--	--	--	50	--
18N 9E30CB 1	77-04-20	--	--	.49	--	--	--	--	50	--
	77-08-31	--	--	.48	--	--	--	--	50	--
19N 5E 1CB 1	77-04-21	--	--	.15	--	--	--	--	80	--
	77-08-30	--	--	.16	--	--	--	--	90	--
19N 6E 1AC 1	77-04-21	--	--	.03	--	--	--	--	20	--
	77-08-30	--	--	.03	--	--	--	--	20	--
19N 7E 1AA 1	77-04-20	--	--	.19	--	--	--	--	60	--
	77-08-30	--	--	.32	--	--	--	--	70	--
20N 7E 4BB 1	77-04-20	--	--	.12	--	--	--	--	100	--
	77-08-30	--	--	.10	--	--	--	--	110	--
20N 8E20ABBD1	77-04-20	--	--	.33	--	--	--	--	180	--
	77-08-30	--	--	.03	--	--	--	--	200	--
				DOUGLAS COUNTY						
16N 10E 8AB 1	77-04-20	--	--	.09	--	--	--	--	20	--
	77-08-31	--	--	.03	--	--	--	--	30	--
				DUNDY COUNTY						
1N 40W29BB 2	77-06-16	.70	.12	.08	0	7	100	0	170	1
2N 38W10DD 1	77-06-16	2.8	.02	.01	10	10	100	0	70	1
4N 38W30BCC 1	77-06-15	1.3	.01	.01	0	12	0	0	60	1
				FILLMORE COUNTY						
5N 4W12BD 1	77-02-23	--	--	.31	--	--	--	--	30	--
	77-08-11	--	--	.36	--	--	--	--	30	--
7N 1W19AA 2	77-09-28	.73	.06	.02	20	0	0	0	40	1
7N 3W36DB 1	77-02-23	--	--	.11	--	--	--	--	30	--
	77-08-11	--	--	.19	--	--	--	--	40	--
8N 1W20DB 2	77-02-23	--	--	.20	--	--	--	--	70	--
	77-08-11	--	--	.10	--	--	--	--	70	--
				FRANKLIN COUNTY						
4N 14W23CC 1	77-06-29	1.7	.02	.01	0	10	200	0	30	1
				FRONTIER COUNTY						
6N 25W 4DDBD1	77-06-14	5.3	.23	.11	0	5	200	0	40	1
				HAMILTON COUNTY						
9N 7W 6DAD 2	77-02-24	--	--	.48	--	--	--	--	30	--
	77-08-10	--	--	.29	--	--	--	--	30	--
10N 6W 4CB 1	77-02-24	--	--	.45	--	--	--	--	30	--
	77-08-10	--	--	.23	--	--	--	--	30	--
11N 7W 3BBB 1	77-03-15	--	--	--	--	--	--	--	--	--
	77-05-31	--	--	.09	--	--	--	--	40	--
	77-07-15	--	--	.11	--	--	--	--	70	--
	77-07-15	--	--	.07	--	--	--	--	60	--
11N 7W 3BBD 1	77-06-29	--	--	.07	--	--	--	--	30	--
11N 7W 3CC 1	76-11-09	--	--	--	--	--	--	--	--	--
	76-11-09	--	--	--	--	--	--	--	--	--
	76-11-09	--	--	--	--	--	--	--	--	--
	76-11-09	--	--	--	--	--	--	--	--	--
11N 7W 3CC 1	77-03-04	--	--	1.3	--	--	--	--	50	--
	77-04-13	--	--	--	--	--	--	--	--	--
	77-04-13	--	--	--	--	--	--	--	--	--
	77-04-13	--	--	--	--	--	--	--	--	--
	77-04-13	--	--	--	--	--	--	--	--	--
	77-07-18	--	--	.03	--	--	--	--	90	--
	77-07-18	--	--	.13	--	--	--	--	90	--
	77-07-19	--	--	.12	--	--	--	--	80	--
	77-07-20	--	--	.12	--	--	--	--	80	--
	77-07-27	--	--	.16	--	--	--	--	70	--
	77-07-28	--	--	.16	--	--	--	--	70	--
	77-07-29	--	--	.16	--	--	--	--	70	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)	DIS-SOLVED COBALT (CO) (UG/L) (01035)	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED LITHIUM (LI) (UG/L) (01130)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L) (01060)
DODGE COUNTY										
17N 9E14CA 1	77-08-31	--	--	11	70	--	--	600	--	--
18N 9E30CB 1	77-04-20	--	--	6	30	--	--	10	--	--
	77-08-31	--	--	6	50	--	--	0	--	--
19N 5E 1CB 1	77-04-21	--	--	0	50	--	--	20	--	--
	77-08-30	--	--	3	90	--	--	30	--	--
19N 6E 1AC 1	77-04-21	--	--	0	7800	--	--	1600	--	--
	77-08-30	--	--	1	6000	--	--	1700	--	--
19N 7E 1AA 1	77-04-20	--	--	0	920	--	--	680	--	--
	77-08-30	--	--	1	580	--	--	600	--	--
20N 7E 4BB 1	77-04-20	--	--	1	160	--	--	1300	--	--
	77-08-30	--	--	1	240	--	--	1300	--	--
20N 8E20ABBD1	77-04-20	--	--	0	3300	--	--	950	--	--
	77-08-30	--	--	0	3400	--	--	970	--	--
DOUGLAS COUNTY										
16N 10E 8AB 1	77-04-20	--	--	27	60	--	--	500	--	--
	77-08-31	--	--	2	820	--	--	550	--	--
DUNDY COUNTY										
1N 40W29BB 2	77-06-16	10	0	0	150	2	70	770	.0	7
2N 38W10DD 1	77-06-16	10	0	0	40	9	30	0	.0	5
4N 38W30BCC 1	77-06-15	--	0	0	20	4	30	0	.0	7
FILLMORE COUNTY										
5N 4W12DD 1	77-02-23	--	--	21	80	--	--	20	--	--
	77-08-11	--	--	--	0	--	--	0	--	--
7N 1W19AA 2	77-09-28	0	0	9	10	8	40	10	.0	1
7N 3W36DB 1	77-02-23	--	--	3	50	--	--	20	--	--
	77-08-11	--	--	--	60	--	--	60	--	--
8N 1W20DB 2	77-02-23	--	--	4	30	--	--	30	--	--
	77-08-11	--	--	--	10	--	--	40	--	--
FRANKLIN COUNTY										
4N 14W23CC 1	77-06-29	0	0	1	20	5	30	0	.0	2
FRONTIER COUNTY										
6N 25W 4DDBD1	77-06-14	10	0	2	20	2	20	0	.0	2
HAMILTON COUNTY										
9N 7W 6DAD 2	77-02-24	--	--	5	50	--	--	740	--	--
	77-08-10	--	--	--	20	--	--	120	--	--
10N 6W 4CB 1	77-02-24	--	--	3	20	--	--	10	--	--
	77-08-10	--	--	--	10	--	--	4	--	--
11N 7W 3BBB 1	77-03-15	--	--	--	40	--	--	30	--	--
	77-05-31	--	--	--	30	--	--	4	--	--
	77-07-15	--	--	--	30	--	--	8	--	--
	77-07-15	--	--	--	20	--	--	8	--	--
11N 7W 3BBD 1	77-06-29	--	--	--	0	--	--	0	--	--
11N 7W 3CC 1	76-11-09	--	--	--	10	--	--	120	--	--
	76-11-09	--	--	--	90	--	--	80	--	--
	76-11-09	--	--	--	0	--	--	100	--	--
	76-11-09	--	--	--	10	--	--	90	--	--
11N 7W 3CC 1	77-03-04	--	--	--	10	--	--	20	--	--
	77-04-13	--	--	--	50	--	--	40	--	--
	77-04-13	--	--	--	40	--	--	30	--	--
	77-04-13	--	--	--	40	--	--	40	--	--
	77-04-13	--	--	--	60	--	--	30	--	--
	77-07-18	--	--	--	100	--	--	20	--	--
	77-07-18	--	--	--	10	--	--	8	--	--
	77-07-19	--	--	--	10	--	--	10	--	--
	77-07-20	--	--	--	20	--	--	10	--	--
	77-07-27	--	--	--	10	--	--	10	--	--
	77-07-28	--	--	--	10	--	--	8	--	--
	77-07-29	--	--	--	10	--	--	10	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
			DODGE COUNTY				
17N 9E14CA 1	77-08-31	--	--	--	--	--	280
18N 9E30CB 1	77-04-20	--	--	--	--	--	160
	77-08-31	--	--	--	--	--	200
19N 5E 1CB 1	77-04-21	--	--	--	--	--	80
	77-08-30	--	--	--	--	--	80
19N 6E 1AC 1	77-04-21	--	--	--	--	--	50
	77-08-30	--	--	--	--	--	20
19N 7E 1AA 1	77-04-20	--	--	--	--	--	2800
	77-08-30	--	--	--	--	--	170
20N 7E 4BB 1	77-04-20	--	--	--	--	--	50
	77-08-30	--	--	--	--	--	70
20N 8E20ABBD1	77-04-20	--	--	--	--	--	80
	77-08-30	--	--	--	--	--	20
			DOUGLAS COUNTY				
16N 10E 8AB 1	77-04-20	--	--	--	--	--	60
	77-08-31	--	--	--	--	--	160
			DUNDY COUNTY				
1N 40W29BA 2	77-06-16	2	6	0	1600	.0	100
2N 38W10DD 1	77-06-16	2	0	0	480	35	0
4N 38W30BCC 1	77-06-15	2	0	0	550	33	0
			FILLMORE COUNTY				
5N 4W12BD 1	77-02-23	--	--	--	--	--	670
	77-08-11	--	--	--	--	--	--
7N 1W19AA 2	77-09-28	0	0	0	30	.0	10
7N 3W36BB 1	77-02-23	--	--	--	--	--	20
	77-08-11	--	--	--	--	--	--
8N 1W20DB 2	77-02-23	--	--	--	--	--	30
	77-08-11	--	--	--	--	--	--
			FRANKLIN COUNTY				
6N 14W23CC 1	77-06-29	2	2	0	450	40	0
			FRONTIER COUNTY				
6N 25W 8DDBD1	77-06-14	4	1	0	410	19	10
			HAMILTON COUNTY				
9N 7W 6DAD 2	77-02-24	--	--	--	--	--	20
	77-08-10	--	--	--	--	--	--
10N 6W 4CB 1	77-02-24	--	--	--	--	--	10
	77-08-10	--	--	--	--	--	--
11N 7W 3BBB 1	77-03-15	--	--	--	--	--	--
	77-05-31	--	--	--	--	--	--
	77-07-15	--	--	--	--	--	--
	77-07-15	--	--	--	--	--	--
11N 7W 3BBD 1	77-06-29	--	--	--	--	--	--
11N 7W 3CC 1	76-11-09	--	--	--	--	--	--
	76-11-09	--	--	--	--	--	--
	76-11-09	--	--	--	--	--	--
	76-11-09	--	--	--	--	--	--
11N 7W 3CC 1	77-03-08	--	--	--	--	--	--
	77-04-13	--	--	--	--	--	--
	77-04-13	--	--	--	--	--	--
	77-04-13	--	--	--	--	--	--
	77-04-13	--	--	--	--	--	--
	77-07-18	--	--	--	--	--	--
	77-07-18	--	--	--	--	--	--
	77-07-19	--	--	--	--	--	--
	77-07-20	--	--	--	--	--	--
	77-07-27	--	--	--	--	--	--
	77-07-28	--	--	--	--	--	--
	77-07-29	--	--	--	--	--	--

LOCAL IDENT-I-FIER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	GEO-LOGIC UNIT	DATE OF SAMPLE	TIME	TOTAL DEPTH OF WELL (FT) (72008)	SAMP-LING DEPTH (FT) (00003)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)
HAMILTON COUNTY										
11N 7W 3CC 10	40 56 45	098 06 42	10	112SDGV	77-08-24	0900	180	--	680	--
				112SDGV	77-09-20	1440	180	--	548	--
11N 7W 3CC 12	40 56 45	098 06 42	12	112SDGV	77-08-24	1000	110	--	2060	--
11N 7W 3CC 6	40 56 45	098 06 42	06	112SDGV	77-09-29	--	22	--	4190	--
11N 7W 3CC 7	40 56 45	098 06 42	07	112SDGV	77-09-14	--	37	--	3130	--
11N 7W 3CCB 1	40 56 48	098 06 42	01	112SDGV	77-05-17	1000	180	--	--	--
				112SDGV	77-05-17	1030	180	--	--	--
				112SDGV	77-05-25	--	180	--	--	--
				112SDGV	77-07-12	1215	180	--	2170	--
11N 7W 3CCC 1	40 56 42	098 06 39	01	112SDGV	77-02-14	1425	180	--	990	--
				112SDGV	77-05-19	--	180	--	--	--
				112SDGV	77-07-22	1555	180	--	838	--
11N 7W 3CCC 2	40 56 45	098 06 42	02	112SDGV	77-03-22	1347	180	154	2160	--
				112SDGV	77-03-22	1515	180	104	1280	--
				112SDGV	77-04-14	1250	180	100	3620	--
				112SDGV	77-04-14	1310	180	135	3700	--
				112SDGV	77-04-14	1330	180	155	3550	--
				112SDGV	77-04-29	--	180	--	--	--
				112SDGV	77-05-25	--	180	--	--	--
				112SDGV	77-07-11	1450	180	--	1000	--
				112SDGV	77-07-11	1530	180	--	2090	--
				112SDGV	77-07-22	1215	180	--	1470	--
				112SDGV	77-07-22	1253	180	--	3670	--
11N 7W 3CCC 3	40 56 45	098 06 42	03	112SDGV	77-03-22	1620	180	105	1150	--
				112SDGV	77-03-22	1700	180	165	2880	--
				112SDGV	77-05-17	1100	180	--	--	--
				112SDGV	77-05-17	1130	180	--	--	--
				112SDGV	77-05-17	1200	180	--	--	--
11N 7W 3CCC 3	40 56 45	098 06 42	03	112SDGV	77-05-25	--	180	--	--	--
				112SDGV	77-07-12	0930	180	--	963	--
11N 7W 3CCD 1	40 56 43	098 06 28	01	112SDGV	77-05-31	--	180	--	--	--
				112SDGV	77-07-13	1300	180	--	1440	--
11N 7W 4DAC 1	40 56 55	098 07 00	01	112SDGV	77-06-29	1200	--	--	774	--
11N 7W 4DD 1	40 56 47	098 06 48	01	112SDGV	76-11-02	--	--	--	1760	--
				112SDGV	77-04-14	0822	--	--	637	--
				112SDGV	77-04-14	1700	--	--	648	--
				112SDGV	77-05-17	1640	--	--	--	--
				112SDGV	77-05-31	1630	--	--	--	--
				112SDGV	77-07-22	0838	--	--	2870	--
				112SDGV	77-09-01	1700	--	--	1570	--
11N 7W 4DDD 1	40 56 48	098 06 46	01	112SDGV	77-09-20	1000	172	--	490	--
11N 7W 4DDD 3	40 56 48	098 06 46	03	112SDGV	77-09-20	0950	109	--	4080	--
11N 7W 6CC 1	40 56 43	098 09 58	01	112SDGV	77-04-14	1010	213	--	825	--
				112SDGV	77-05-17	1904	213	--	--	--
				112SDGV	77-05-19	1118	213	--	--	--
				112SDGV	77-05-19	1719	213	--	--	--
				112SDGV	77-09-13	2032	213	--	970	--
11N 7W 9AAA 1	40 56 40	098 06 49	01	112SDGV	77-06-30	1200	--	--	672	--
11N 7W 9ACB 1	40 56 27	098 07 19	01	112SDGV	77-07-08	1200	--	--	867	--
11N 7W 9ADC 1	40 56 15	098 06 58	01	112SDGV	77-06-30	1200	--	--	760	--
HARLAN COUNTY										
2N 18W 9BCC 1	40 09 20	099 21 55	01	112SDGV	77-06-13	--	170	--	476	7.2
4N 18W15AD 1	40 18 57	099 19 52	01	112SDGV	77-06-30	--	315	--	192	8.3

LOCAL IDENT-I-FIER	DATE OF SAMPLE	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)
					HAMILTON COUNTY					
11N 7W 3CC 10	77-08-24	--	3	270	100	83	16	27	.7	5.7
	77-09-20	--	4	230	54	69	13	25	.7	5.5
11N 7W 3CC 12	77-08-24	--	4	980	700	300	56	60	.8	19
11N 7W 3CC 6	77-09-29	--	4	2100	1700	600	140	370	3.5	94
11N 7W 3CC 7	77-09-14	--	4	1700	1300	510	100	110	1.2	68
11N 7W 3CCB 1	77-05-17	--	1	300	110	92	16	29	.7	7.4
	77-05-17	--	1	360	140	110	20	31	.7	7.0
	77-05-25	--	1	1600	1300	490	88	81	.9	8.8
	77-07-12	--	1	1300	1100	420	72	69	.8	23
11N 7W 3CCC 1	77-02-14	--	1	430	240	130	26	47	1.0	8.0
	77-05-19	--	1	390	170	120	21	32	.7	7.6
	77-07-22	--	2	380	170	120	20	30	.7	6.9
11N 7W 3CCC 2	77-03-22	--	--	990	790	310	52	80	1.1	16
	77-03-22	--	--	510	320	160	27	71	1.4	11
	77-04-14	--	--	1800	1600	570	95	90	.9	28
	77-04-14	--	--	1800	1600	570	92	90	.9	24
	77-04-14	--	--	1700	1500	540	91	85	.9	24
	77-04-29	--	2	2200	2000	700	110	110	1.0	29
	77-05-25	--	1	300	110	93	17	74	1.9	7.0
	77-07-11	--	1	380	170	120	20	69	1.5	8.1
	77-07-11	--	2	980	760	310	50	93	1.3	12
	77-07-22	--	1	670	350	210	36	31	.5	21
	77-07-22	--	2	1800	1600	570	94	97	1.0	20
11N 7W 3CCC 3	77-03-22	--	--	550	280	170	30	24	.4	16
	77-03-22	--	--	1500	1300	450	79	74	.8	4.5
	77-05-17	--	1	440	160	140	22	16	.3	18
	77-05-17	--	1	1200	1000	390	66	75	.9	22
	77-05-17	--	1	1200	980	370	64	72	.9	21
11N 7W 3CCC 3	77-05-25	--	1	450	270	140	25	60	1.2	15
	77-07-12	--	1	320	130	100	17	79	1.9	12
11N 7W 3CCD 1	77-05-31	--	1	390	180	120	22	32	.7	8.7
	77-07-13	--	2	660	450	210	33	37	.6	15
11N 7W 4DAC 1	77-06-29	--	1	350	140	110	18	27	.6	6.5
11N 7W 4DD 1	76-11-02	--	--	850	680	270	43	58	.9	16
	77-04-14	--	--	270	65	84	14	29	.8	6.8
	77-04-14	--	--	270	65	84	14	29	.8	6.8
	77-05-17	--	1	280	79	89	15	29	.7	7.0
	77-05-31	--	1	280	79	89	15	29	.7	6.9
	77-07-22	--	2	1400	1100	460	67	91	1.1	19
	77-09-01	--	2	750	520	240	36	50	.8	12
11N 7W 4DDD 1	77-09-20	--	3	190	20	59	11	22	.7	5.0
11N 7W 4DDD 3	77-09-20	--	5	2100	1800	660	100	98	.9	22
11N 7W 6CC 1	77-04-14	--	--	270	86	82	17	75	2.0	5.4
	77-05-17	--	1	310	110	95	17	78	1.9	5.8
	77-05-19	--	1	290	110	90	17	69	1.8	5.5
	77-05-19	--	1	300	110	91	17	74	1.9	5.6
	77-09-13	--	2	280	96	86	17	77	2.0	5.1
11N 7W 9AAA 1	77-06-30	--	45	270	120	82	16	22	.6	21
11N 7W 9ACB 1	77-07-08	--	1	410	180	130	20	30	.6	9.3
11N 7W 9ADC 1	77-06-30	--	1	340	90	110	15	33	.8	8.8
					HARLAN COUNTY					
2N 18W 9BCC 1	77-06-13	16.5	2	240	14	76	13	8.6	.2	8.3
4N 18W15AD 1	77-06-30	14.5	2	64	0	9.9	9.6	9.0	.5	7.7

LOCAL IDENT-I-FIER	DATE OF SAMPLE	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)	ALKA-LINITY AS CACO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	BROMIDE (BR) (MG/L) (71870)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) (70300)
				HAMILTON COUNTY						
11N 7W 3CC 10	77-08-24	210	--	170	83	8.1	.6	.1	28	--
	77-09-28	210	--	170	77	7.0	.5	.1	27	--
11N 7W 3CC 12	77-08-24	340	--	280	530	21	.5	.2	27	--
11N 7W 3CC 6	77-09-29	490	--	400	2500	9.3	.2	--	43	--
11N 7W 3CC 7	77-09-14	510	--	420	1600	7.0	.5	.1	28	--
11N 7W 3CCB 1	77-05-17	230	--	190	130	7.0	.6	.1	18	--
	77-05-17	260	--	210	150	7.2	.6	--	19	--
	77-05-25	300	--	250	610	32	.4	--	23	--
	77-07-12	320	--	260	580	26	.4	.2	29	--
11N 7W 3CCC 1	77-02-14	230	--	190	260	25	.5	.3	26	--
	77-05-19	260	--	210	160	8.2	.5	.1	23	--
	77-07-22	260	--	210	170	8.0	.5	.1	25	--
11N 7W 3CCC 2	77-03-22	240	--	200	430	31	--	--	--	--
	77-03-22	230	--	190	300	28	--	--	--	--
	77-04-14	280	--	230	680	40	--	--	--	--
	77-04-14	270	--	221	610	40	--	--	--	--
	77-04-14	270	--	221	560	38	--	--	--	--
	77-04-29	290	--	240	870	50	.3	.2	27	--
	77-05-25	230	--	190	230	27	.6	--	19	--
	77-07-11	260	--	210	220	26	.5	.2	25	--
	77-07-11	270	--	220	470	33	.4	.3	27	--
	77-07-22	390	--	320	250	16	.5	.2	32	--
	77-07-22	290	--	240	720	44	.3	.3	25	--
11N 7W 3CCC 3	77-03-22	330	--	271	200	12	--	--	--	--
	77-03-22	280	--	230	660	24	--	--	--	--
	77-05-17	340	--	280	130	13	.6	--	32	--
	77-05-17	250	--	210	580	33	.5	.2	27	--
	77-05-17	250	--	210	550	31	.5	--	27	--
11N 7W 3CCC 3	77-05-25	220	--	180	280	29	.6	--	24	--
	77-07-12	230	--	190	230	26	.7	.2	23	--
11N 7W 3CCD 1	77-05-31	260	--	210	180	7.4	.5	.1	24	--
	77-07-13	280	--	230	310	16	.4	.1	31	--
11N 7W 4DAC 1	77-06-29	250	--	210	160	8.5	.5	.1	23	--
11N 7W 4DD 1	76-11-02	259	--	212	390	20	--	--	--	--
	77-04-14	250	--	205	120	6.5	--	--	--	--
	77-04-14	250	--	205	110	6.4	--	--	--	--
	77-05-17	250	--	210	110	6.5	.6	.0	18	--
	77-05-31	250	--	210	110	6.4	.6	--	18	--
	77-07-22	340	--	280	750	26	.3	.3	29	--
	77-09-01	280	--	230	350	13	.4	.1	23	--
11N 7W 4DDD 1	77-09-20	210	--	170	62	6.8	.6	.1	28	--
11N 7W 4DDD 3	77-09-20	310	--	250	620	55	.3	.5	28	--
11N 7W 6CC 1	77-04-14	230	--	190	230	23	--	--	--	--
	77-05-17	240	--	200	220	27	.5	--	18	--
	77-05-19	230	--	190	210	26	.5	--	18	--
	77-05-19	230	--	190	220	26	.5	.2	18	--
	77-09-13	230	--	190	230	26	.5	.2	19	--
11N 7W 9AAA 1	77-06-30	180	--	150	190	5.8	.6	.1	29	--
11N 7W 9ACB 1	77-07-08	280	--	230	200	7.0	.5	.1	27	--
11N 7W 9ADC 1	77-06-30	300	--	250	140	6.1	.5	.1	28	--
				HARLAN COUNTY						
2N 18W 9BCC 1	77-06-13	280	0	230	14	5.6	.3	--	56	329
4N 18W15AD 1	77-06-30	110	0	90	.6	4.7	.1	--	--	90

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS- SOLVED NITRATE (N) (MG/L) (00618)	DIS- SOLVED NITRITE (N) (MG/L) (00613)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L) (00625)
				HAMILTON COUNTY						
11N 7W 3CC 10	77-08-24	421	.57	--	--	--	15	--	--	--
	77-09-20	357	.49	--	--	--	6.6	--	--	--
11N 7W 3CC 12	77-08-24	1540	2.09	--	--	--	81	--	--	--
11N 7W 3CC 6	77-09-29	4020	5.47	--	--	--	5.0	--	--	--
11N 7W 3CC 7	77-09-14	2690	3.66	--	--	--	2.7	--	--	--
11N 7W 3CCB 1	77-05-17	440	--	--	--	--	6.8	--	--	--
	77-05-17	531	--	--	--	--	13	--	--	--
	77-05-25	2400	--	--	--	--	210	--	--	--
	77-07-12	2000	2.72	--	--	--	140	--	--	--
11N 7W 3CCC 1	77-02-14	698	.95	--	--	--	14	--	--	--
	77-05-19	563	--	--	--	--	14	--	--	--
	77-07-22	566	.77	--	--	--	13	--	--	--
11N 7W 3CCC 2	77-03-22	--	--	--	--	--	150	--	--	--
	77-03-22	--	--	--	--	--	41	--	--	--
	77-04-14	--	--	--	--	--	300	--	--	--
	77-04-14	--	--	--	--	--	290	--	--	--
	77-04-14	--	--	--	--	--	300	--	--	--
	77-04-29	3500	--	--	--	--	330	--	--	--
	77-05-25	593	--	--	--	--	2.8	--	--	--
	77-07-11	675	.92	--	--	--	13	--	--	--
	77-07-11	1620	2.20	--	--	--	110	--	--	--
	77-07-22	1030	1.40	--	--	--	55	--	--	--
	77-07-22	2730	3.71	--	--	--	250	--	--	--
11N 7W 3CCC 3	77-03-22	--	--	--	--	--	37	--	--	--
	77-03-22	--	--	--	--	--	170	--	--	--
	77-05-17	632	--	--	--	--	21	--	--	--
	77-05-17	2110	--	--	--	--	180	--	--	--
	77-05-17	2010	--	--	--	--	170	--	--	--
11N 7W 3CCC 3	77-05-25	788	--	--	--	--	24	--	--	--
	77-07-12	645	.88	--	--	--	9.8	--	--	--
11N 7W 3CCD 1	77-05-31	585	--	--	--	--	14	--	--	--
	77-07-13	1060	1.44	--	--	--	60	--	--	--
11N 7W 4DAC 1	77-06-29	526	.72	--	--	--	11	--	--	--
11N 7W 4DD 1	76-11-02	--	--	--	--	--	100	--	--	--
	77-04-14	--	--	--	--	--	4.8	--	--	--
	77-04-14	--	--	--	--	--	4.9	--	--	--
	77-05-17	415	--	--	--	--	3.8	--	--	--
	77-05-31	416	--	--	--	--	3.6	--	--	--
	77-07-22	2360	3.21	--	--	--	170	--	--	--
	77-09-01	1160	1.58	--	--	--	67	--	--	--
11N 7W 4DDD 1	77-09-20	302	.41	--	--	--	.93	--	--	--
11N 7W 4DDD 3	77-09-20	3390	4.61	--	--	--	330	--	--	--
11N 7W 6CC 1	77-04-14	--	--	--	--	--	1.1	--	--	--
	77-05-17	585	--	--	--	--	1.1	--	--	--
	77-05-19	553	--	--	--	--	.75	--	--	--
	77-05-19	569	--	--	--	--	.73	--	--	--
	77-09-13	577	.78	--	--	--	.69	--	--	--
11N 7W 9AAA 1	77-06-30	459	.62	--	--	--	4.9	--	--	--
11N 7W 9ACB 1	77-07-08	589	.81	--	--	--	8.4	--	--	--
11N 7W 9ADC 1	77-06-30	511	.70	--	--	--	4.8	--	--	--
				HARLAN COUNTY						
2N 18W 9BCC 1	77-06-13	337	.45	3.7	.01	3.6	3.6	.06	.29	.35
4N 18W15AD 1	77-06-30	--	.12	.02	.00	.04	.02	.60	.20	.80

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L) (00666)	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED BERYL- LIUM (BE) (UG/L) (01010)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)
				HAMILTON COUNTY						
11N 7W 3CC 10	77-08-24	--	--	.08	--	--	--	--	30	--
	77-09-20	--	--	.12	--	--	--	--	50	--
11N 7W 3CC 12	77-08-24	--	--	.23	--	--	--	--	60	--
11N 7W 3CC 6	77-07-29	--	--	.31	--	--	--	--	230	--
11N 7W 3CC 7	77-09-16	--	--	.01	--	--	--	--	70	--
11N 7W 3CCB 1	77-05-17	--	--	.03	--	--	--	--	20	--
	77-05-17	--	--	.05	--	--	--	--	20	--
	77-05-25	--	--	.05	--	--	--	--	60	--
	77-07-12	--	--	.01	--	--	--	--	60	--
11N 7W 3CCC 1	77-02-16	--	--	.09	--	--	--	--	60	--
	77-05-19	--	--	.09	--	--	--	--	30	--
	77-07-22	--	--	.07	--	--	--	--	40	--
11N 7W 3CCC 2	77-03-22	--	--	--	--	--	--	--	--	--
	77-03-22	--	--	--	--	--	--	--	--	--
	77-04-14	--	--	--	--	--	--	--	--	--
	77-04-14	--	--	--	--	--	--	--	--	--
	77-04-14	--	--	--	--	--	--	--	--	--
	77-04-29	--	--	.21	--	--	--	--	60	--
	77-05-25	--	--	.15	--	--	--	--	90	--
	77-07-11	--	--	.29	--	--	--	--	80	--
	77-07-11	--	--	.14	--	--	--	--	90	--
	77-07-22	--	--	.29	--	--	--	--	60	--
	77-07-22	--	--	.08	--	--	--	--	70	--
11N 7W 3CCC 3	77-03-22	--	--	--	--	--	--	--	--	--
	77-03-22	--	--	--	--	--	--	--	--	--
	77-05-17	--	--	.56	--	--	--	--	50	--
	77-05-17	--	--	.26	--	--	--	--	50	--
	77-05-17	--	--	.26	--	--	--	--	50	--
11N 7W 3CCC 3	77-05-25	--	--	.31	--	--	--	--	60	--
	77-07-12	--	--	.29	--	--	--	--	80	--
11N 7W 3CCD 1	77-05-31	--	--	.09	--	--	--	--	30	--
	77-07-13	--	--	.12	--	--	--	--	50	--
11N 7W 4DAC 1	77-06-29	--	--	.06	--	--	--	--	30	--
11N 7W 4DD 1	76-11-02	--	--	--	--	--	--	--	--	--
	77-04-14	--	--	--	--	--	--	--	--	--
	77-04-14	--	--	--	--	--	--	--	--	--
	77-05-17	--	--	.66	--	--	--	--	30	--
	77-05-31	--	--	.64	--	--	--	--	30	--
	77-07-22	--	--	.09	--	--	--	--	60	--
	77-09-01	--	--	.08	--	--	--	--	80	--
11N 7W 4DDD 1	77-09-20	--	--	.11	--	--	--	--	30	--
11N 7W 4DDD 3	77-09-20	--	--	.16	--	--	--	--	70	--
11N 7W 6CC 1	77-04-14	--	--	--	--	--	--	--	--	--
	77-05-17	--	--	.60	--	--	--	--	100	--
	77-05-19	--	--	.09	--	--	--	--	100	--
	77-05-19	--	--	.08	--	--	--	--	100	--
	77-09-13	--	--	.07	--	--	--	--	110	--
11N 7W 9AAA 1	77-06-30	--	--	.50	--	--	--	--	60	--
11N 7W 9ACB 1	77-07-08	--	--	.19	--	--	--	--	50	--
11N 7W 9ADC 1	77-06-30	--	--	.13	--	--	--	--	40	--
				HARLAN COUNTY						
2N 18W 9BCC 1	77-06-13	4.0	.26	.05	20	3	190	5	50	4
4N 18W15AD 1	77-06-30	.84	.01	.01	30	0	0	0	30	1

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)	DIS-SOLVED COBALT (CO) (UG/L) (01035)	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED LITHIUM (LI) (UG/L) (01130)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L) (01060)
HAMILTON COUNTY										
11N 7W 3CC 10	77-08-24	--	--	--	10	--	--	10	--	--
	77-09-20	--	--	--	20	--	--	4	--	--
11N 7W 3CC 12	77-08-24	--	--	--	20	--	--	10	--	--
11N 7W 3CC 6	77-09-29	--	--	--	10	--	--	20	--	--
11N 7W 3CC 7	77-09-14	--	--	--	10	--	--	40	--	--
11N 7W 3CCB 1	77-05-17	--	--	--	20	--	--	8	--	--
	77-05-17	--	--	--	20	--	--	20	--	--
	77-05-25	--	--	--	20	--	--	30	--	--
	77-07-12	--	--	--	30	--	--	60	--	--
11N 7W 3CCC 1	77-02-14	--	--	--	0	--	--	20	--	--
	77-05-19	--	--	--	30	--	--	8	--	--
	77-07-22	--	--	--	10	--	--	0	--	--
11N 7W 3CCC 2	77-03-22	--	--	--	30	--	--	30	--	--
	77-03-22	--	--	--	60	--	--	10	--	--
	77-04-14	--	--	--	40	--	--	30	--	--
	77-04-14	--	--	--	40	--	--	20	--	--
	77-04-14	--	--	--	30	--	--	30	--	--
	77-04-29	--	--	--	20	--	--	20	--	--
	77-05-25	--	--	--	20	--	--	0	--	--
	77-07-11	--	--	--	10	--	--	0	--	--
	77-07-11	--	--	--	10	--	--	8	--	--
	77-07-22	--	--	--	270	--	--	4	--	--
	77-07-22	--	--	--	10	--	--	8	--	--
11N 7W 3CCC 3	77-03-22	--	--	--	60	--	--	10	--	--
	77-03-22	--	--	--	10	--	--	20	--	--
	77-05-17	--	--	--	20	--	--	20	--	--
	77-05-17	--	--	--	20	--	--	20	--	--
	77-05-17	--	--	--	20	--	--	8	--	--
11N 7W 3CCC 3	77-05-25	--	--	--	20	--	--	0	--	--
	77-07-12	--	--	--	0	--	--	0	--	--
11N 7W 3CCD 1	77-05-31	--	--	--	10	--	--	0	--	--
	77-07-13	--	--	--	0	--	--	4	--	--
11N 7W 4DAC 1	77-06-29	--	--	--	0	--	--	4	--	--
11N 7W 4DD 1	76-11-02	--	--	--	10	--	--	40	--	--
	77-04-14	--	--	--	10	--	--	10	--	--
	77-04-14	--	--	--	30	--	--	20	--	--
	77-05-17	--	--	--	10	--	--	10	--	--
	77-05-31	--	--	--	10	--	--	10	--	--
	77-07-22	--	--	--	10	--	--	20	--	--
	77-09-01	--	--	--	50	--	--	10	--	--
11N 7W 4DDD 1	77-09-20	--	--	--	10	--	--	0	--	--
11N 7W 4DDD 3	77-09-20	--	--	--	10	--	--	40	--	--
11N 7W 6CC 1	77-04-14	--	--	--	40	--	--	0	--	--
	77-05-17	--	--	--	20	--	--	8	--	--
	77-05-19	--	--	--	20	--	--	30	--	--
	77-05-19	--	--	--	10	--	--	8	--	--
	77-09-13	--	--	--	10	--	--	10	--	--
11N 7W 9AAA 1	77-06-30	--	--	--	20	--	--	0	--	--
11N 7W 9ACB 1	77-07-08	--	--	--	10	--	--	0	--	--
11N 7W 9ADC 1	77-06-30	--	--	--	0	--	--	4	--	--
HARLAN COUNTY										
2N 18W 9BCC 1	77-06-13	0	0	8	30	3	20	10	.0	1
4N 18W15AD 1	77-06-30	0	0	1	30	7	30	50	.0	2

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DIS-SOLVED NICKEL (NI) (UG/L) (01065)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED STRON-TIUM (SR) (UG/L) (01080)	DIS-SOLVED VANA-DIUM (V) (UG/L) (01085)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)
			HAMILTON COUNTY				
11N 7W 3CC 10	77-08-24	--	--	--	--	--	--
	77-09-20	--	--	--	--	--	--
11N 7W 3CC 12	77-08-24	--	--	--	--	--	--
11N 7W 3CC 6	77-09-29	--	--	--	--	--	--
11N 7W 3CC 7	77-09-14	--	--	--	--	--	--
11N 7W 3CCB 1	77-05-17	--	--	--	--	--	--
	77-05-17	--	--	--	--	--	--
	77-05-25	--	--	--	--	--	--
	77-07-12	--	--	--	--	--	--
11N 7W 3CCC 1	77-02-14	--	--	--	--	--	--
	77-05-19	--	--	--	--	--	--
	77-07-22	--	--	--	--	--	--
11N 7W 3CCC 2	77-03-22	--	--	--	--	--	--
	77-03-22	--	--	--	--	--	--
	77-04-18	--	--	--	--	--	--
	77-04-14	--	--	--	--	--	--
	77-04-18	--	--	--	--	--	--
	77-04-29	--	--	--	--	--	--
	77-05-25	--	--	--	--	--	--
	77-07-11	--	--	--	--	--	--
	77-07-11	--	--	--	--	--	--
	77-07-22	--	--	--	--	--	--
	77-07-22	--	--	--	--	--	--
11N 7W 3CCC 3	77-03-22	--	--	--	--	--	--
	77-03-22	--	--	--	--	--	--
	77-05-17	--	--	--	--	--	--
	77-05-17	--	--	--	--	--	--
	77-05-17	--	--	--	--	--	--
11N 7W 3CCC 3	77-05-25	--	--	--	--	--	--
	77-07-12	--	--	--	--	--	--
11N 7W 3CCD 1	77-05-31	--	--	--	--	--	--
	77-07-13	--	--	--	--	--	--
11N 7W 4DAC 1	77-06-29	--	--	--	--	--	--
11N 7W 4DD 1	76-11-02	--	--	--	--	--	--
	77-04-18	--	--	--	--	--	--
	77-04-14	--	--	--	--	--	--
	77-05-17	--	--	--	--	--	--
	77-05-31	--	--	--	--	--	--
	77-07-22	--	--	--	--	--	--
	77-09-01	--	--	--	--	--	--
11N 7W 4DDD 1	77-09-20	--	--	--	--	--	--
11N 7W 4DDD 3	77-09-20	--	--	--	--	--	--
11N 7W 6CC 1	77-04-18	--	--	--	--	--	--
	77-05-17	--	--	--	--	--	--
	77-05-19	--	--	--	--	--	--
	77-05-19	--	--	--	--	--	--
	77-09-13	--	--	--	--	--	--
11N 7W 9AAA 1	77-06-30	--	--	--	--	--	--
11N 7W 9ACB 1	77-07-08	--	--	--	--	--	--
11N 7W 9ADC 1	77-06-30	--	--	--	--	--	--
			HARLAN COUNTY				
2N 18W 9BCC 1	77-06-13	2	0	0	520	9.5	10
4N 18W15AD 1	77-06-30	4	0	0	80	.0	0

LOCAL IDENT-I-FIER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	GEO-LOGIC UNIT	DATE OF SAMPLE	TIME	TOTAL DEPTH OF WELL (FT) (72008)	SAMP-LING DEPTH (FT) (00003)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)
HOWARD COUNTY										
13N 11W11BA 1	41 07 11	098 33 07	01	121OGLL	77-06-09	--	144	--	--	--
				121OGLL	77-07-25	--	144	--	613	7.3
				121OGLL	77-09-22	--	144	--	606	7.2
13N 12W20DC 1	41 04 43	098 42 55	01	121OGLL	77-07-27	--	268	--	570	7.1
				121OGLL	77-09-22	--	268	--	487	7.4
14N 11W 6BAC 1	41 13 03	098 37 39	01	121OGLL	77-06-09	--	150	--	578	7.0
				121OGLL	77-07-25	--	150	--	575	7.4
				121OGLL	77-09-22	--	150	--	562	7.3
14N 11W29DC 1	41 09 07	098 36 04	01	121OGLL	77-07-25	--	260	--	501	7.2
14N 12W11DB 1	41 10 25	098 43 28	01	121OGLL	77-07-25	--	312	--	547	7.2
15N 10W28DA 1	41 14 23	098 27 53	01	121OGLL	77-07-27	--	162	--	596	7.1
15N 11W10CBA 1	41 17 05	098 34 17	01	121OGLL	77-07-26	--	150	--	608	7.2
				121OGLL	77-09-22	--	150	--	595	7.2
15N 12W21BB 1	41 15 52	098 42 25	01	121OGLL	77-07-25	--	355	--	571	7.7
JOHNSON COUNTY										
6N 11E 4DDDD1	40 30 32	096 10 48	01	112SDGV	77-08-31	--	106	--	575	7.5
KIMBALL COUNTY										
15N 55W 7ABB 1	41 17 39	103 40 15	01	121OGLL	77-08-11	--	314	--	306	7.8
MCPHERSON COUNTY										
19N 31W11BAD 1	41 38 11	100 51 30	01	112SDGV	77-06-21	--	283	283	162	7.6
19N 31W12CAC 1	41 37 46	100 50 27	01	112SDGV	77-06-21	--	260	260	178	7.6
MADISON COUNTY										
21N 2W34AA 1	41 45 18	097 31 34	01	112SDGV	77-04-22	--	108	--	705	7.1
				112SDGV	77-08-29	--	108	--	700	7.1
21N 3W 4DCCA1	41 49 01	097 39 58	01	112SDGV	77-04-22	--	160	--	550	7.3
				112SDGV	77-08-29	--	160	--	570	7.2
22N 1W30BB 2	41 51 25	097 28 57	02	112SDGV	77-04-22	--	166	--	570	7.0
				112SDGV	77-08-29	--	166	--	580	7.1
23N 2W 3ABAA1	42 00 10	097 31 45	01	112SDGV	77-04-21	--	73	--	310	7.3
				112SDGV	77-08-29	--	73	--	305	7.2
24N 2W22CC 1	42 02 05	097 32 26	01	111ALVM	77-04-22	--	40	--	670	7.1
				111ALVM	77-08-29	--	40	--	665	7.2
24N 4W35AD 1	42 00 46	097 44 22	01	112SDGV	77-04-22	--	105	--	400	7.1
				112SDGV	77-08-29	--	105	--	408	7.1
PERKINS COUNTY										
9N 35W14BBB 1	40 45 19	101 17 03	01	121OGLL	77-07-12	--	298	--	368	7.7
9N 39W 2DDDD1	40 46 20	101 43 34	01	121OGLL	77-07-11	--	225	--	505	7.6
12N 38W31CCCC1	40 57 37	101 42 32	01	121OGLL	77-07-12	--	255	--	391	7.6
PLATTE COUNTY										
18N 1W12DD 1	41 32 30	097 22 10	01	112SDGV	77-04-22	--	120	--	695	7.1
				112SDGV	77-08-29	--	120	--	710	6.8
20N 2W35CC 1	41 39 27	097 31 03	01	112SDGV	77-04-22	--	160	--	915	7.1
				112SDGV	77-08-29	--	160	--	760	7.2
POLK COUNTY										
13N 4W21CCD 2	41 04 34	097 47 11	02	112SDGV	77-02-25	0935	150	--	660	7.4
				112SDGV	77-08-09	--	150	--	640	6.8
14N 1W 9DAC 1	41 11 45	097 25 46	01	112SDGV	77-02-25	1020	270	--	541	7.2
				112SDGV	77-08-09	--	270	--	580	7.0
14N 2W21DB 1	41 10 12	097 32 52	01	112SDGV	77-09-06	--	180	--	1070	7.4
RED WILLOW COUNTY										
4N 27W16ABB 1	40 19 19	100 22 30	01	121OGLL	77-06-15	--	158	--	78	7.4
SALINE COUNTY										
8N 3E20BAD 1	40 39 02	097 06 49	01	112SDGV	77-02-23	0930	190	--	535	6.8
				112SDGV	77-08-11	--	190	--	540	7.3

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT-I-FIER	DATE OF SAMPLE	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (CA,MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)
				HOWARD COUNTY						
13N 11W11BA 1	77-06-09	--	--	270	0	83	15	16	.4	--
	77-07-25	14.5	--	300	7	93	17	16	.4	--
	77-09-22	13.5	--	280	0	87	15	15	.4	--
13N 12W20DC 1	77-07-27	15.0	--	250	9	83	9.7	11	.3	--
	77-09-22	14.0	--	220	0	72	9.6	11	.3	--
14N 11W 6BAC 1	77-06-09	13.0	--	270	0	90	12	9.0	.2	--
	77-07-25	16.0	--	290	4	95	13	8.9	.2	--
	77-09-22	14.0	--	280	0	91	12	8.9	.2	--
14N 11W29DC 1	77-07-25	14.5	--	240	11	80	10	11	.3	--
14N 12W11DB 1	77-07-25	15.0	--	270	0	90	11	13	.3	--
15N 10W28DA 1	77-07-27	15.0	--	280	38	89	13	15	.4	--
15N 11W10CBA 1	77-07-26	15.0	--	300	23	98	14	11	.3	--
	77-09-22	14.5	--	290	12	95	13	12	.3	--
15N 12W21BB 1	77-07-25	14.5	--	290	18	94	13	7.7	.2	--
				JOHNSON COUNTY						
6N 11E 4DDDD1	77-08-31	10.0	6	230	0	72	13	32	.9	3.3
				KIMBALL COUNTY						
15N 55W 7ABB 1	77-08-11	10.0	2	130	2	37	9.8	6.6	.3	4.3
				MCPHERSON COUNTY						
19N 31W11BAD 1	77-06-21	13.0	2	56	0	18	2.7	6.6	.4	4.7
19N 31W12CAC 1	77-06-21	14.0	5	67	0	22	3.0	6.7	.4	4.9
				MADISON COUNTY						
21N 2W34AA 1	77-04-22	14.0	1	340	24	100	21	22	.5	8.3
	77-08-29	13.5	4	330	12	100	20	22	.5	7.8
21N 3W 4DCCA1	77-04-22	11.0	1	270	0	87	13	9.6	.3	4.1
	77-08-29	15.5	3	280	0	90	13	9.6	.3	4.1
22N 1W30BB 2	77-04-22	12.5	1	270	0	83	15	10	.3	6.4
	77-08-29	13.0	4	290	0	90	16	10	.3	6.1
23N 2W 3ABAA1	77-04-21	12.5	2	140	0	43	6.9	9.5	.4	4.3
	77-08-29	15.5	8	140	0	44	6.8	9.4	.3	4.1
24N 2W22CC 1	77-04-22	12.0	1	310	13	89	21	21	.5	12
	77-08-29	15.0	5	290	24	85	20	20	.5	3.8
24N 4W35AD 1	77-04-22	11.5	1	190	0	59	9.9	7.7	.2	7.6
	77-08-29	14.0	3	190	0	61	10	7.6	.2	7.2
				PERKINS COUNTY						
9N 35W14BBB 1	77-07-12	15.5	1	160	0	42	12	9.0	.3	11
9N 39W 2DDDD1	77-07-11	--	2	210	22	64	12	11	.3	11
12N 38W31CCCC1	77-07-12	18.0	2	170	3	45	13	7.9	.3	12
				PLATTE COUNTY						
18N 1W12DD 1	77-04-22	9.5	1	340	49	110	17	18	.4	6.6
	77-08-29	15.0	3	350	49	110	19	18	.4	6.2
20N 2W35CC 1	77-04-22	14.0	2	430	96	140	20	37	.8	7.7
	77-08-29	13.5	8	400	67	130	19	30	.7	6.9
				POLK COUNTY						
13N 4W21CCD 2	77-02-25	12.0	3	290	0	90	15	29	.7	7.0
	77-08-09	14.0	1	280	0	88	15	28	.7	6.8
14N 1W 9DAC 1	77-02-25	11.5	2	250	18	80	12	19	.5	7.4
	77-08-09	15.5	2	270	19	88	13	18	.5	8.0
14N 2W21DB 1	77-09-06	9.0	7	390	43	120	21	49	1.1	6.9
				RED WILLOW COUNTY						
4N 27W16ABB 1	77-06-15	16.0	4	210	0	60	15	9.6	.3	9.2
				SALINE COUNTY						
8N 3E20BAD 1	77-02-23	13.0	3	230	0	72	11	24	.7	4.8
	77-08-11	16.0	2	230	5	74	12	25	.7	4.8

LOCAL IDENT- I- FIER	DATE OF SAMPLE	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	ALKA- LINITY AS CACO3 (MG/L) (00410)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	BROMIDE (BR) (MG/L) (71870)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)
HOWARD COUNTY										
13N 11W11BA 1	77-06-09	350	--	287	22	13	--	--	--	--
	77-07-25	360	--	295	21	12	--	--	--	--
	77-09-22	360	--	295	24	12	--	--	--	--
13N 12W20DC 1	77-07-27	290	--	238	17	4.6	--	--	--	--
	77-09-22	290	--	238	17	11	--	--	--	--
14N 11W 6BAC 1	77-06-09	340	--	279	18	1.9	--	--	--	--
	77-07-25	350	--	287	16	2.0	--	--	--	--
	77-09-22	350	--	287	15	2.5	--	--	--	--
14N 11W29DC 1	77-07-25	280	--	230	12	7.6	--	--	--	--
14N 12W11DB 1	77-07-25	330	--	271	14	3.1	--	--	--	--
15N 10W28DA 1	77-07-27	290	--	238	33	5.4	--	--	--	--
15N 11W10CBA 1	77-07-26	340	--	279	29	5.3	--	--	--	--
	77-09-22	340	--	279	28	10	--	--	--	--
15N 12W21BB 1	77-07-25	330	--	271	14	3.7	--	--	--	--
JOHNSON COUNTY										
6N 11E 4DDDD1	77-08-31	330	0	270	25	6.5	.3	--	27	324
KIMBALL COUNTY										
15N 55W 7ABB 1	77-08-11	160	0	130	9.2	3.8	.6	--	46	203
MCPHERSON COUNTY										
19N 31W11BAD 1	77-06-21	83	0	68	4.3	.9	3.0	--	52	135
19N 31W12CAC 1	77-06-21	95	0	78	4.7	1.1	.2	--	49	140
MADISON COUNTY										
21N 2W34AA 1	77-04-22	380	0	310	77	3.7	.3	--	33	--
	77-08-29	390	0	320	83	4.3	.4	--	33	--
21N 3W 4DCCA1	77-04-22	340	0	280	12	4.8	.3	--	46	--
	77-08-29	350	0	290	12	4.8	.2	--	46	--
22N 1W30BB 2	77-04-22	350	0	290	17	2.7	.4	--	41	--
	77-08-29	360	0	300	16	2.8	.2	--	41	--
23N 2W 3ABAA1	77-04-21	180	0	150	15	1.1	.3	--	38	--
	77-08-29	170	0	140	15	1.4	.3	--	40	--
24N 2W22CC 1	77-04-22	360	0	300	64	4.2	.4	--	36	--
	77-08-29	330	0	270	56	3.3	.4	--	37	--
24N 4W35AD 1	77-04-22	240	0	200	9.9	1.5	.4	--	41	--
	77-08-29	240	0	200	11	1.6	.3	--	42	--
PERKINS COUNTY										
9N 35W14BBB 1	77-07-12	200	0	160	12	3.3	.7	--	53	286
9N 39W 2DDDD1	77-07-11	230	0	190	6.7	7.4	.4	--	49	322
12N 38W31CCCC1	77-07-12	200	0	160	13	4.3	.6	--	46	251
PLATTE COUNTY										
18N 1W12DD 1	77-04-22	360	0	300	60	8.5	.3	--	45	--
	77-08-29	370	0	300	61	7.4	.3	--	45	--
20N 2W35CC 1	77-04-22	410	0	340	120	24	.3	--	39	--
	77-08-29	410	0	340	110	22	.3	--	28	--
POLK COUNTY										
13N 4W21CCD 2	77-02-25	365	0	299	28	9.8	.3	--	34	--
	77-08-09	350	0	290	28	9.4	.3	--	37	--
14N 1W 9DAC 1	77-02-25	282	0	231	36	7.1	.3	--	38	--
	77-08-09	310	0	250	35	7.5	.2	--	45	--
14N 2W21DB 1	77-09-06	420	0	340	56	24	.3	--	30	651
RED WILLOW COUNTY										
4N 27W16ABB 1	77-06-15	260	0	210	12	3.3	.7	--	56	293
SALINE COUNTY										
8N 3E20BAD 1	77-02-23	277	0	227	45	9.2	.3	--	29	--
	77-08-11	280	0	230	44	9.9	.3	--	32	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED NITRATE (N) (MG/L) (00618)	DIS-SOLVED NITRITE (N) (MG/L) (00613)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO-GEN (N) (MG/L) (00605)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L) (00625)
HOWARD COUNTY										
13N 11W11BA 1	77-06-09	--	--	--	--	--	.32	--	--	--
	77-07-25	--	--	--	--	--	.45	--	--	--
	77-09-22	--	--	--	--	--	.46	--	--	--
13N 12W20DC 1	77-07-27	--	--	--	--	--	1.1	--	--	--
	77-09-22	--	--	--	--	--	1.1	--	--	--
14N 11W 6BAC 1	77-06-09	--	--	--	--	--	.40	--	--	--
	77-07-25	--	--	--	--	--	.45	--	--	--
	77-09-22	--	--	--	--	--	.38	--	--	--
14N 11W29DC 1	77-07-25	--	--	--	--	--	.02	--	--	--
14N 12W11DB 1	77-07-25	--	--	--	--	--	.77	--	--	--
15N 10W28DA 1	77-07-27	--	--	--	--	--	7.5	--	--	--
15N 11W10CBA 1	77-07-26	--	--	--	--	--	2.0	--	--	--
	77-09-22	--	--	--	--	--	2.0	--	--	--
15N 12W21BB 1	77-07-25	--	--	--	--	--	.71	--	--	--
JOHNSON COUNTY										
6N 11E 4DDDD1	77-08-31	343	.44	.00	.00	.00	.00	.00	.00	.00
KIMBALL COUNTY										
15N 55W 7ABB 1	77-08-11	207	.28	2.2	.00	2.8	2.2	.01	.35	.36
MCPHERSON COUNTY										
19N 31W11BAD 1	77-06-21	139	.18	1.2	.00	1.1	1.1	.01	.00	.01
19N 31W12CAC 1	77-06-21	141	.19	.51	.00	.53	.51	.06	.02	.08
MADISON COUNTY										
21N 2W34AA 1	77-04-22	455	.62	--	--	--	.07	--	--	--
	77-08-29	466	.63	--	--	--	.01	--	--	--
21N 3W 40CCA1	77-04-22	351	.48	--	--	--	1.2	--	--	--
	77-08-29	359	.49	--	--	--	1.3	--	--	--
22N 1W30BB 2	77-04-22	354	.48	--	--	--	1.2	--	--	--
	77-08-29	365	.50	--	--	--	1.2	--	--	--
23N 2W 3ABAA1	77-04-21	209	.28	--	--	--	.09	--	--	--
	77-08-29	207	.28	--	--	--	.02	--	--	--
24N 2W22CC 1	77-04-22	428	.58	--	--	--	.48	--	--	--
	77-08-29	389	.53	--	--	--	.09	--	--	--
24N 4W35AD 1	77-04-22	259	.35	--	--	--	.88	--	--	--
	77-08-29	263	.36	--	--	--	.91	--	--	--
PERKINS COUNTY										
9N 35W14DBB 1	77-07-12	253	.33	2.3	.00	2.2	2.2	.00	.13	.13
9N 39W 2DDDD1	77-07-11	329	.44	12	.01	--	--	.00	.10	.10
12N 38W31CCCC1	77-07-12	254	.34	2.9	.04	3.3	2.9	.04	.24	.28
PLATTE COUNTY										
18N 1W12DD 1	77-04-22	462	.63	--	--	--	4.3	--	--	--
	77-08-29	464	.63	--	--	--	3.3	--	--	--
20N 2W35CC 1	77-04-22	608	.83	--	--	--	3.9	--	--	--
	77-08-29	559	.76	--	--	--	1.7	--	--	--
POLK COUNTY										
13N 4W21CCD 2	77-02-25	416	.57	--	--	--	5.2	--	--	--
	77-08-09	407	.55	--	--	--	5.0	--	--	--
14N 1W 9DAC 1	77-02-25	351	.48	--	--	--	2.8	--	--	--
	77-08-09	385	.52	--	--	--	3.9	--	--	--
14N 2W21DB 1	77-09-06	583	.89	15	.00	35	15	.01	2.5	2.5
RED WILLOW COUNTY										
4N 27W16ABB 1	77-06-15	304	.40	2.0	.03	2.1	2.0	.02	.18	.20
SALINE COUNTY										
8N 3E20BAD 1	77-02-23	333	.45	--	--	--	.14	--	--	--
	77-08-11	340	.46	--	--	--	.04	--	--	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L) (00666)	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED BERYL- LIUM (BE) (UG/L) (01010)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)
HOWARD COUNTY										
13N 11W11BA 1	77-06-09	--	--	--	--	--	--	--	--	--
	77-07-25	--	--	--	--	--	--	--	--	--
	77-09-22	--	--	--	--	--	--	--	--	--
13N 12W20DC 1	77-07-27	--	--	--	--	--	--	--	--	--
	77-09-22	--	--	--	--	--	--	--	--	--
14N 11W 6BAC 1	77-06-09	--	--	--	--	--	--	--	--	--
	77-07-25	--	--	--	--	--	--	--	--	--
	77-09-22	--	--	--	--	--	--	--	--	--
14N 11W29DC 1	77-07-25	--	--	--	--	--	--	--	--	--
14N 12W11DB 1	77-07-25	--	--	--	--	--	--	--	--	--
15N 10W28DA 1	77-07-27	--	--	--	--	--	--	--	--	--
15N 11W10CBA 1	77-07-26	--	--	--	--	--	--	--	--	--
	77-09-22	--	--	--	--	--	--	--	--	--
15N 12W21BB 1	77-07-25	--	--	--	--	--	--	--	--	--
JOHNSON COUNTY										
4N 11E 4DDDD1	77-08-31	.00	.03	.03	20	2	200	0	50	2
KIMBALL COUNTY										
15N 55W 7ABB 1	77-08-11	2.8	.07	.00	1	3	300	5	40	2
MCPHERSON COUNTY										
19N 31W11BAD 1	77-06-21	1.1	.38	--	10	2	0	0	10	1
19N 31W12CAC 1	77-06-21	.61	.12	.12	30	7	0	0	10	1
MADISON COUNTY										
21N 2W34AA 1	77-04-22	--	--	.02	--	--	--	--	120	--
	77-08-29	--	--	.02	--	--	--	--	130	--
21N 3W 4DCCA1	77-04-22	--	--	.14	--	--	--	--	40	--
	77-08-29	--	--	.14	--	--	--	--	40	--
22N 1W30BB 2	77-04-22	--	--	.20	--	--	--	--	50	--
	77-08-29	--	--	.19	--	--	--	--	50	--
23N 2W 3ABAA1	77-04-21	--	--	.13	--	--	--	--	20	--
	77-08-29	--	--	.21	--	--	--	--	20	--
24N 2W22CC 1	77-04-22	--	--	.09	--	--	--	--	70	--
	77-08-29	--	--	.08	--	--	--	--	70	--
24N 4W35AD 1	77-04-22	--	--	.25	--	--	--	--	30	--
	77-08-29	--	--	.26	--	--	--	--	30	--
PERKINS COUNTY										
9N 35W14BBB 1	77-07-12	2.3	.01	.01	2	8	300	0	50	0
9N 39W 20DDD1	77-07-11	--	.31	.02	2	5	500	0	50	1
12N 38W31CCCC1	77-07-12	3.6	.11	.07	2	7	300	0	50	0
PLATTE COUNTY										
18N 1W12DD 1	77-04-22	--	--	.05	--	--	--	--	50	--
	77-08-29	--	--	.25	--	--	--	--	60	--
20N 2W35CC 1	77-04-22	--	--	.08	--	--	--	--	70	--
	77-08-29	--	--	.02	--	--	--	--	70	--
POLK COUNTY										
13N 4W21CCD 2	77-02-25	--	--	.82	--	--	--	--	30	--
	77-08-09	--	--	.44	--	--	--	--	40	--
14N 1W 9DAC 1	77-02-25	--	--	.73	--	--	--	--	40	--
	77-08-09	--	--	.23	--	--	--	--	40	--
14N 2W21DB 1	77-09-06	38	7.5	.12	40	3	500	0	50	0
RED WILLOW COUNTY										
4N 27W16ABB 1	77-06-15	2.3	.06	.03	10	4	200	0	60	1
SALINE COUNTY										
8N 3E20BAD 1	77-02-23	--	--	.23	--	--	--	--	40	--
	77-08-11	--	--	.14	--	--	--	--	50	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)	DIS-SOLVED COBALT (CO) (UG/L) (01035)	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED LITHIUM (LI) (UG/L) (01130)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L) (01060)
HOWARD COUNTY										
13N 11W11BA 1	77-06-09	--	--	--	--	--	--	--	--	--
	77-07-25	--	--	--	--	--	--	--	--	--
	77-09-22	--	--	--	--	--	--	--	--	--
13N 12W20DC 1	77-07-27	--	--	--	--	--	--	--	--	--
	77-09-22	--	--	--	--	--	--	--	--	--
14N 11W 6BAC 1	77-06-09	--	--	--	--	--	--	--	--	--
	77-07-25	--	--	--	--	--	--	--	--	--
	77-09-22	--	--	--	--	--	--	--	--	--
14N 11W29DC 1	77-07-25	--	--	--	--	--	--	--	--	--
14N 12W11DB 1	77-07-25	--	--	--	--	--	--	--	--	--
15N 10W28DA 1	77-07-27	--	--	--	--	--	--	--	--	--
15N 11W10CBA 1	77-07-26	--	--	--	--	--	--	--	--	--
	77-09-22	--	--	--	--	--	--	--	--	--
15N 12W21BB 1	77-07-25	--	--	--	--	--	--	--	--	--
JOHNSON COUNTY										
6N 11E 4DDDD1	77-08-31	0	1	1	20	8	20	120	.0	1
KIMBALL COUNTY										
15N 55W 7ABB 1	77-08-11	0	0	4	70	11	20	10	.0	1
MCPHERSON COUNTY										
19N 31W11BAD 1	77-06-21	10	0	1	40	3	10	0	.0	1
19N 31W12CAC 1	77-06-21	10	0	2	60	2	8	0	.0	0
MADISON COUNTY										
21N 2W34AA 1	77-04-22	--	--	0	1800	--	--	150	--	--
	77-08-29	--	--	2	3000	--	--	160	--	--
21N 3W 4DCCA1	77-04-22	--	--	7	30	--	--	10	--	--
	77-08-29	--	--	6	20	--	--	0	--	--
22N 1W30BB 2	77-04-22	--	--	1	40	--	--	0	--	--
	77-08-29	--	--	3	40	--	--	0	--	--
23N 2W 3ABAA1	77-04-21	--	--	7	1600	--	--	440	--	--
	77-08-29	--	--	1	1400	--	--	430	--	--
24N 2W22CC 1	77-04-22	--	--	0	310	--	--	160	--	--
	77-08-29	--	--	3	280	--	--	200	--	--
24N 4W35AD 1	77-04-22	--	--	0	30	--	--	0	--	--
	77-08-29	--	--	3	50	--	--	0	--	--
PERKINS COUNTY										
9N 35W14BBB 1	77-07-12	0	0	2	40	10	20	4	.0	4
9N 39W 2DDDD1	77-07-11	0	1	5	80	17	20	30	.0	1
12N 38W31CCCC1	77-07-12	0	0	1	50	3	20	10	.0	3
PLATTE COUNTY										
18N 1W12DD 1	77-04-22	--	--	50	10	--	--	0	--	--
	77-08-29	--	--	35	140	--	--	0	--	--
20N 2W35CC 1	77-04-22	--	--	18	610	--	--	10	--	--
	77-08-29	--	--	5	2400	--	--	90	--	--
POLK COUNTY										
13N 4W21CCD 2	77-02-25	--	--	2	20	--	--	10	--	--
	77-08-09	--	--	--	10	--	--	0	--	--
14N 1W 9DAC 1	77-02-25	--	--	2	20	--	--	10	--	--
	77-08-09	--	--	--	10	--	--	0	--	--
14N 2W21DB 1	77-09-06	16	0	3	160	7	20	30	.0	0
RED WILLOW COUNTY										
4N 27W16ABB 1	77-06-15	10	0	1	40	2	30	4	.0	3
SALINE COUNTY										
8N 3E20BAD 1	77-02-23	--	--	5	110	--	--	470	--	--
	77-08-11	--	--	--	10	--	--	150	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED VANA- DIL (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
			HOWARD COUNTY				
13N 11W11BA 1	77-06-09	--	--	--	--	--	--
	77-07-25	--	--	--	--	--	--
	77-09-22	--	--	--	--	--	--
13N 12W20DC 1	77-07-27	--	--	--	--	--	--
	77-09-22	--	--	--	--	--	--
14N 11W 6BAC 1	77-06-09	--	--	--	--	--	--
	77-07-25	--	--	--	--	--	--
	77-09-22	--	--	--	--	--	--
14N 11W29DC 1	77-07-25	--	--	--	--	--	--
14N 12W11DB 1	77-07-25	--	--	--	--	--	--
15N 10W28DA 1	77-07-27	--	--	--	--	--	--
15N 11W10CBA 1	77-07-26	--	--	--	--	--	--
	77-09-22	--	--	--	--	--	--
15N 12W21BB 1	77-07-25	--	--	--	--	--	--
			JOHNSON COUNTY				
6N 11E 6DDDD1	77-08-31	2	0	1	360	.0	40
			KIMBALL COUNTY				
15N 55W 7ABB 1	77-08-11	3	2	0	410	9.5	170
			MCPHERSON COUNTY				
19N 31W11BAD 1	77-06-21	2	1	0	90	9.0	6
19N 31W12CAC 1	77-06-21	3	1	0	120	7.2	4
			MADISON COUNTY				
21N 2W30AA 1	77-04-22	--	--	--	--	--	20
	77-08-29	--	--	--	--	--	40
21N 3W 4DCCA1	77-04-22	--	--	--	--	--	1400
	77-08-29	--	--	--	--	--	1000
22N 1W30BB 2	77-04-22	--	--	--	--	--	50
	77-08-29	--	--	--	--	--	70
23N 2W 3ABAA1	77-04-21	--	--	--	--	--	20
	77-08-29	--	--	--	--	--	20
24N 2W22CC 1	77-04-22	--	--	--	--	--	20
	77-08-29	--	--	--	--	--	20
24N 4W35AD 1	77-04-22	--	--	--	--	--	150
	77-08-29	--	--	--	--	--	90
			PERKINS COUNTY				
9N 35W18BBB 1	77-07-12	4	2	0	560	14	10
9N 39W 20DDD1	77-07-11	3	0	0	550	10	10
12N 38W31CCCC1	77-07-12	2	1	0	600	9.5	20
			PLATTE COUNTY				
18N 1W12DD 1	77-04-22	--	--	--	--	--	130
	77-08-29	--	--	--	--	--	80
20N 2W35CC 1	77-04-22	--	--	--	--	--	340
	77-08-29	--	--	--	--	--	890
			POLK COUNTY				
13N 4W21CCD 2	77-02-25	--	--	--	--	--	10
	77-08-09	--	--	--	--	--	--
14N 1W 9DAC 1	77-02-25	--	--	--	--	--	10
	77-08-09	--	--	--	--	--	--
14N 2W21DB 1	77-09-06	2	30	0	650	4.6	360
			RED WILLOW COUNTY				
4N 27W16ABB 1	77-06-15	2	1	0	610	12	10
			SALINE COUNTY				
8N 3E20BAD 1	77-02-23	--	--	--	--	--	20
	77-08-11	--	--	--	--	--	--

LOCAL IDENT-I-FIER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	GEO-LOGIC UNIT	DATE OF SAMPLE	TIME	TOTAL DEPTH OF WELL (FT) (72008)	SAMP-LING DEPTH (FT) (00003)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)
SCOTTS BLUFF COUNTY										
22N 55W11DDC 1	41 53 25	103 39 28	01	110SDGV	77-06-22	--	32	--	958	7.7
SEWARD COUNTY										
11N 1E29BC 1	40 53 30	097 20 48	01	112SDGV	77-02-25	1130	254	--	600	7.1
				112SDGV	77-08-09	--	254	--	600	6.8
11N 2E26AD 6	40 53 43	097 09 39	06	112SDGV	77-02-25	1320	117	--	608	7.0
				112SDGV	77-08-09	--	117	--	635	7.0
SHERIDAN COUNTY										
29N 46W10AA 1	42 30 34	102 41 50	01	110SDGV	77-06-22	--	100	--	612	7.6
SHERMAN COUNTY										
15N 13W27AB 2	41 14 52	098 47 21	02	121OGLL	77-06-08	--	200	--	510	7.1
				121OGLL	77-07-25	--	200	--	559	7.4
				121OGLL	77-09-22	--	200	--	500	7.4
15N 14W 7CA 1	41 17 06	098 58 10	01	121OGLL	77-06-08	--	150	--	564	7.0
				121OGLL	77-07-25	--	150	--	580	7.2
				121OGLL	77-09-22	--	150	--	538	7.2
STANTON COUNTY										
23N 1E16DA 1	41 57 59	097 18 46	01	111ALVM	77-04-21	--	32	--	705	7.0
				111ALVM	77-08-30	--	32	--	750	7.0
23N 3E 20C 1	41 59 28	097 02 45	01	111ALVM	77-04-21	--	30	--	420	7.5
				111ALVM	77-08-30	--	30	--	440	7.1
THURSTON COUNTY										
25N 6E26DADB1	42 06 20	096 41 35	01	112SDGV	77-09-16	--	70	--	815	7.2
WASHINGTON COUNTY										
18N 9E 1DC 1	41 33 15	096 21 16	01	110SDGV	77-04-20	--	70	--	890	7.0
				110SDGV	77-08-31	--	70	--	910	7.2
YORK COUNTY										
9N 4W 6AC 1	40 46 46	097 48 51	01	112SDGV	77-02-24	1600	171	--	518	7.1
				112SDGV	77-08-10	--	171	--	510	7.1
11N 2W31CA 1	40 52 42	097 35 24	01	112SDGV	77-02-25	0845	138	--	645	7.0
11N 2W31CA 2	40 52 42	097 35 24	02	112SDGV	77-08-09	--	348	--	585	7.3
12N 1W11BC 2	41 01 37	097 24 13	02	112SDGV	77-02-25	1055	156	--	622	7.3
				112SDGV	77-08-09	--	156	--	610	7.0

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
SCOTTS BLUFF COUNTY										
22N 55W11DDC 1	77-06-22	13.5	4	330	97	98	24	78	1.9	17
SEWARD COUNTY										
11N 1E29BC 1	77-02-25	12.5	3	250	21	79	13	31	.9	5.5
	77-08-09	15.0	2	240	11	75	13	30	.8	5.4
11N 2E26AD 6	77-02-25	11.5	3	230	26	72	12	37	1.1	6.8
	77-08-09	14.0	2	250	46	79	13	40	1.1	7.1
SHERIDAN COUNTY										
29N 46W10AA 1	77-06-22	--	4	270	0	91	9.9	21	.6	10
SHERMAN COUNTY										
15N 13W27AB 2	77-06-08	14.0	--	250	0	80	11	6.9	.2	--
	77-07-25	16.5	--	270	8	87	13	10	.3	--
	77-09-22	16.5	--	250	3	80	12	6.6	.2	--
15N 14W 7CA 1	77-06-08	13.5	--	270	3	90	12	11	.3	--
	77-07-25	16.5	--	300	26	99	12	10	.3	--
	77-09-22	14.5	--	280	22	91	12	10	.3	--
STANTON COUNTY										
23N 1E16DA 1	77-04-21	10.5	1	340	25	97	23	18	.4	11
	77-08-30	15.0	5	340	37	100	22	19	.4	10
23N 3E 20C 1	77-04-21	9.5	1	200	5	61	12	8.0	.2	6.5
	77-08-30	17.5	6	200	0	62	12	8.1	.2	6.4
THURSTON COUNTY										
25N 6E26DADB1	77-09-16	14.0	7	430	58	120	31	17	.4	4.8
WASHINGTON COUNTY										
18N 9E 10C 1	77-04-20	11.5	1	400	21	119	30	48	1.0	5.9
	77-08-31	16.5	4	390	9	110	29	45	1.0	5.6
YORK COUNTY										
9N 4W 6AC 1	77-02-24	10.5	3	220	26	70	11	23	.7	5.7
	77-08-10	14.5	1	220	18	68	11	23	.7	5.7
11N 2W31CA 1	77-02-25	8.5	3	260	2	79	14	38	1.0	6.5
11N 2W31CA 2	77-08-09	15.5	2	220	0	69	12	29	.8	5.2
12N 1W11BC 2	77-02-25	11.0	4	290	6	96	13	22	.6	5.6
	77-08-09	15.5	2	270	0	85	13	28	.7	5.0

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	ALKA- LINITY AS CACO3 (MG/L) (00410)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	BROMIDE (BR) (MG/L) (71870)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)
				SCOTTS BLUFF COUNTY						
22N 55W11DDC 1	77-06-22	290	6	240	220	16	.6	--	65	659
				SEWARD COUNTY						
11N 1E29BC 1	77-02-25	280	0	230	33	16	.5	--	36	--
	77-08-09	280	0	230	31	13	.2	--	38	--
11N 2E26AD 6	77-02-25	248	0	203	83	4.8	.2	--	32	--
	77-08-09	250	0	210	100	6.2	.2	--	35	--
				SHERIDAN COUNTY						
29N 46W10AA 1	77-06-22	340	0	280	10	5.9	.3	--	60	302
				SHERMAN COUNTY						
15N 13W27AB 2	77-06-08	300	--	246	15	3.1	--	--	--	--
	77-07-25	320	--	262	16	6.5	--	--	--	--
	77-09-22	300	--	246	12	3.5	--	--	--	--
15N 14W 7CA 1	77-06-08	330	--	271	20	6.2	--	--	--	--
	77-07-25	330	--	271	18	6.0	--	--	--	--
	77-09-22	310	--	254	18	5.0	--	--	--	--
				STANTON COUNTY						
23N 1E16DA 1	77-04-21	380	0	310	76	3.0	.3	--	31	--
	77-08-30	370	0	300	84	3.0	.3	--	31	--
23N 3E 20C 1	77-04-21	240	0	200	26	1.1	.2	--	30	--
	77-08-30	250	0	210	25	1.4	.3	--	33	--
				THURSTON COUNTY						
25N 6E26DA0B1	77-09-16	450	0	370	100	2.3	.2	--	27	--
				WASHINGTON COUNTY						
18N 9E 10C 1	77-04-20	460	0	380	110	7.0	.1	--	18	--
	77-08-31	470	0	390	110	7.2	.6	--	16	--
				YORK COUNTY						
9N 4W 6AC 1	77-02-24	237	0	194	60	18	.4	--	30	--
	77-08-10	240	0	200	39	17	.4	--	32	--
11N 2W31CA 1	77-02-25	308	0	253	92	15	.3	--	37	--
11N 2W31CA 2	77-08-09	280	0	230	62	14	.4	--	38	--
12N 1W11BC 2	77-02-25	350	0	287	29	10	.3	--	37	--
	77-08-09	340	0	280	19	12	.3	--	39	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS- SOLVED NITRATE (N) (MG/L) (00618)	DIS- SOLVED NITRITE (N) (MG/L) (00613)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L) (00625)
				SCOTTS BLUFF COUNTY						
22N 55W11DDC 1	77-06-22	658	.90	4.3	.00	5.0	4.3	.01	.30	.31
				SEWARD COUNTY						
11N 1E29BC 1	77-02-25	395	.54	--	--	--	9.7	--	--	--
	77-08-09	385	.52	--	--	--	9.3	--	--	--
11N 2E26AD 6	77-02-25	400	.54	--	--	--	6.8	--	--	--
	77-08-09	445	.60	--	--	--	8.9	--	--	--
				SHERIDAN COUNTY						
29N 46W10AA 1	77-06-22	379	.52	2.3	.00	2.4	2.3	.03	.14	.17
				SHERMAN COUNTY						
15N 13W27AB 2	77-06-08	--	--	--	--	--	1.1	--	--	--
	77-07-25	--	--	--	--	--	.67	--	--	--
	77-09-22	--	--	--	--	--	1.3	--	--	--
15N 14W 7CA 1	77-06-08	--	--	--	--	--	1.7	--	--	--
	77-07-25	--	--	--	--	--	1.9	--	--	--
	77-09-22	--	--	--	--	--	1.9	--	--	--
				STANTON COUNTY						
23N 1E16DA 1	77-04-21	450	.61	--	--	--	.10	--	--	--
	77-08-30	461	.63	--	--	--	1.6	--	--	--
23N 3E 20C 1	77-04-21	266	.36	--	--	--	.11	--	--	--
	77-08-30	272	.37	--	--	--	.01	--	--	--
				THURSTON COUNTY						
25N 6E26BADD1	77-09-16	526	.72	--	--	--	.02	--	--	--
				WASHINGTON COUNTY						
18N 9E 10C 1	77-04-20	559	.76	--	--	--	1.2	--	--	--
	77-08-31	555	.75	--	--	--	.06	--	--	--
				YORK COUNTY						
9N 4W 4AC 1	77-02-24	327	.44	--	--	--	2.7	--	--	--
	77-08-10	328	.45	--	--	--	3.1	--	--	--
11N 2W31CA 1	77-02-25	417	.57	--	--	--	5.2	--	--	--
11N 2W31CA 2	77-08-09	349	.47	--	--	--	.22	--	--	--
12N 1W11BC 2	77-02-25	396	.54	--	--	--	2.6	--	--	--
	77-08-09	392	.53	--	--	--	5.0	--	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOL-VED PHOS-PHORUS (P) (MG/L) (00666)	DIS-SOLVED ALUM-INUM (AL) (UG/L) (01106)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED BARIUM (BA) (UG/L) (01005)	DIS-SOLVED BERYL-LIUM (BE) (UG/L) (01010)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CAD-MIUM (CD) (UG/L) (01025)
				SCOTTS BLUFF COUNTY						
22N 55W11DDC 1	77-06-22	5.3	.09	.03	10	3	0	0	130	1
				SEWARD COUNTY						
11N 1E29BC 1	77-02-25	--	--	.62	--	--	--	--	80	--
	77-08-09	--	--	.33	--	--	--	--	30	--
11N 2E26AD 6	77-02-25	--	--	.62	--	--	--	--	50	--
	77-08-09	--	--	.29	--	--	--	--	50	--
				SHERIDAN COUNTY						
29N 46W10AA 1	77-06-22	2.6	.11	.02	0	3	100	0	90	1
				SHERMAN COUNTY						
15N 13W27AB 2	77-06-08	--	--	--	--	--	--	--	--	--
	77-07-25	--	--	--	--	--	--	--	--	--
	77-09-22	--	--	--	--	--	--	--	--	--
15N 14W 7CA 1	77-06-08	--	--	--	--	--	--	--	--	--
	77-07-25	--	--	--	--	--	--	--	--	--
	77-09-22	--	--	--	--	--	--	--	--	--
				STANTON COUNTY						
23N 1E16DA 1	77-04-21	--	--	.04	--	--	--	--	70	--
	77-08-30	--	--	.07	--	--	--	--	80	--
23N 3E 20C 1	77-04-21	--	--	.14	--	--	--	--	20	--
	77-08-30	--	--	.14	--	--	--	--	30	--
				THURSTON COUNTY						
25N 6E26DADD1	77-09-16	--	--	.15	--	--	--	--	70	--
				WASHINGTON COUNTY						
18N 9E 10C 1	77-04-28	--	--	.20	--	--	--	--	100	--
	77-08-31	--	--	.01	--	--	--	--	150	--
				YORK COUNTY						
9N 4W 6AC 1	77-02-24	--	--	.48	--	--	--	--	30	--
	77-08-10	--	--	.25	--	--	--	--	30	--
11N 2W31CA 1	77-02-25	--	--	.57	--	--	--	--	50	--
11N 2W31CA 2	77-08-09	--	--	.12	--	--	--	--	60	--
12N 1W11BC 2	77-02-25	--	--	.55	--	--	--	--	80	--
	77-08-09	--	--	.27	--	--	--	--	80	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DIS-SOLVED CHRO-MIUM (CR) (UG/L) (01030)	DIS-SOLVED COBALT (CO) (UG/L) (01035)	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED LITHIUM (LI) (UG/L) (01130)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	DIS-SOLVED MERCURY (HG) (UG/L) (71890)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L) (01060)
				SCOTTS BLUFF COUNTY						
22N 55W11DDC 1	77-06-22	10	0	2	120	2	40	0	.0	3
				SEWARD COUNTY						
11N 1E29BC 1	77-02-25	--	--	21	20	--	--	10	--	--
	77-08-09	--	--	--	10	--	--	0	--	--
11N 2E26AD 6	77-02-25	--	--	9	30	--	--	0	--	--
	77-08-09	--	--	--	0	--	--	0	--	--
				SHERIDAN COUNTY						
29N 46W10AA 1	77-06-22	10	0	1	110	0	20	30	.0	2
				SHERMAN COUNTY						
15N 13W27AB 2	77-06-08	--	--	--	--	--	--	--	--	--
15N 13W27AB 2	77-07-25	--	--	--	--	--	--	--	--	--
	77-09-22	--	--	--	--	--	--	--	--	--
15N 14W 7CA 1	77-06-08	--	--	--	--	--	--	--	--	--
	77-07-25	--	--	--	--	--	--	--	--	--
	77-09-22	--	--	--	--	--	--	--	--	--
				STANTON COUNTY						
23N 1E16DA 1	77-04-21	--	--	0	1200	--	--	30	--	--
	77-08-30	--	--	2	760	--	--	60	--	--
23N 3E 2DC 1	77-04-21	--	--	0	190	--	--	70	--	--
	77-08-30	--	--	2	240	--	--	80	--	--
				THURSTON COUNTY						
25N 6E26DADB1	77-09-16	--	--	2	1100	--	--	680	--	--
				WASHINGTON COUNTY						
18N 9E 1DC 1	77-04-20	--	--	0	1600	--	--	250	--	--
	77-08-31	--	--	1	990	--	--	220	--	--
				YORK COUNTY						
9N 8W 6AC 1	77-02-28	--	--	1	30	--	--	0	--	--
	77-08-10	--	--	--	10	--	--	0	--	--
11N 2W31CA 1	77-02-25	--	--	4	30	--	--	0	--	--
11N 2W31CA 2	77-08-09	--	--	--	80	--	--	220	--	--
12N 1W11BC 2	77-02-25	--	--	5	80	--	--	0	--	--
	77-08-09	--	--	--	40	--	--	4	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DIS-SOLVED NICKEL (NI) (UG/L) (01065)	DIS-SOLVED SELE-NIUM (SE) (UG/L) (01145)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED STRON-TIUM (SR) (UG/L) (01080)	DIS-SOLVED VANA-DIUM (V) (UG/L) (01085)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)
SCOTTS BLUFF COUNTY							
22N 55W11DDC 1	77-06-22	2	7	0	920	12	70
SEWARD COUNTY							
11N 1E29BC 1	77-02-25	--	--	--	--	--	10
	77-08-09	--	--	--	--	--	--
11N 2E26AD 6	77-02-25	--	--	--	--	--	20
	77-08-09	--	--	--	--	--	--
SHERIDAN COUNTY							
29N 46W10AA 1	77-06-22	3	8	0	480	11	240
SHERMAN COUNTY							
15N 13W27AB 2	77-06-08	--	--	--	--	--	--
15N 13W27AB 2	77-07-25	--	--	--	--	--	--
	77-09-22	--	--	--	--	--	--
15N 14W 7CA 1	77-06-08	--	--	--	--	--	--
	77-07-25	--	--	--	--	--	--
	77-09-22	--	--	--	--	--	--
STANTON COUNTY							
23N 1E16DA 1	77-04-21	--	--	--	--	--	100
	77-08-30	--	--	--	--	--	110
23N 3E 2DC 1	77-04-21	--	--	--	--	--	430
	77-08-30	--	--	--	--	--	480
THURSTON COUNTY							
25N 6E26DADB1	77-09-16	--	--	--	--	--	90
WASHINGTON COUNTY							
18N 9E 1DC 1	77-04-20	--	--	--	--	--	20
	77-08-31	--	--	--	--	--	30
YORK COUNTY							
9N 4W 6AC 1	77-02-24	--	--	--	--	--	10
	77-08-10	--	--	--	--	--	--
11N 2W31CA 1	77-02-25	--	--	--	--	--	20
11N 2W31CA 2	77-08-09	--	--	--	--	--	--
12N 1W11BC 2	77-02-25	--	--	--	--	--	40
	77-08-09	--	--	--	--	--	--

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FACTORS FOR CONVERTING U.S. CUSTOMARY UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the U.S. customary units published herein to the International System of Units (SI). Subsequent reports will contain both the U.S. customary and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply U.S. customary units	By	To obtain SI units
	Length	
inches (in)	2.54x10^{1}	millimeters (mm)
	2.54x10^{-2}	meters (m)
feet (ft)	3.048x10^{-1}	meters (m)
miles (mi)	1.609x10^{0}	kilometers (km)
	Area	
acres	4.047x10^{3}	square meters (m^{2})
	4.047x10^{-1}	square hectometers (hm^{2})
	4.047x10^{-3}	square kilometers (km^{2})
square miles (mi^{2})	2.590x10^{0}	square kilometers (km^{2})
	Volume	
gallons (gal)	3.785x10^{0}	liters (L)
	3.785x10^{0}	cubic decimeters (dm^{3})
	3.785x10^{-3}	cubic meters (m^{3})
million gallons	3.785x10^{3}	cubic meters (m^{3})
	3.785x10^{-3}	cubic hectometers (hm^{3})
cubic feet (ft^{3})	2.832x10^{1}	cubic decimeters (dm^{3})
	2.832x10^{-2}	cubic meters (m^{3})
cfs-days	2.447x10^{3}	cubic meters (m^{3})
	2.447x10^{-3}	cubic hectometers (hm^{3})
acre-feet (acre-ft)	1.233x10^{3}	cubic meters (m^{3})
	1.233x10^{-3}	cubic hectometers (hm^{3})
	1.233x10^{-6}	cubic kilometers (km^{3})
	Flow	
cubic feet per second (ft^{3}/s)	2.832x10^{1}	liters per second (L/s)
	2.832x10^{1}	cubic decimeters per second (dm^{3}/s)
	2.832x10^{-2}	cubic meters per second (m^{3}/s)
gallons per minute (gal/min)	6.309x10^{-2}	liters per second (L/s)
	6.309x10^{-2}	cubic decimeters per second (dm^{3}/s)
	6.309x10^{-5}	cubic meters per second (m^{3}/s)
million gallons per day	4.381x10^{1}	cubic decimeters per second (dm^{3}/s)
	4.381x10^{-2}	cubic meters per second (m^{3}/s)
	Mass	
tons (short)	9.072x10^{-1}	megagrams (Mg) or metric tons